

**2013-1501, -1502
(Reexamination No. 95/000,411)**

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PANDUIT CORPORATION,

Appellant,

v.

ADC TELECOMMUNICATIONS, INC.

Cross Appellant.

Appeals from the United States Patent and Trademark Office, Patent Trial and
Appeal Board.

**CROSS APPELLANT ADC TELECOMMUNICATIONS, INC.'S
PRINCIPAL AND RESPONSE BRIEF**

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Dated: November 21, 2013

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CERTIFICATE OF INTEREST

Counsel for Cross Appellant ADC Telecommunications, Inc. certifies the following:

1. The full name of every party or amicus represented by me is: ADC Telecommunications, Inc.
2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is: ADC Telecommunications, Inc.
3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are: ADC Telecommunications, Inc. is a wholly-owned subsidiary of Tyco Electronics Group S.A., and Tyco Electronics Group S.A. is a wholly-owned subsidiary of TE Connectivity Ltd., a publicly traded company.
4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

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STATEMENT OF RELATED CASES

The patent at issue in this appeal is related to three other patents that are in *inter partes* reexamination. Two of these related *inter partes* reexaminations were the subject of prior appeals and cross appeals to this Court. *See* Appeal Nos. 2012-1435, -1436 (Reexamination No. 95/000,412) (regarding U.S. Patent No. 6,868,220) and Appeal Nos. 2012-1437, -1438 (Reexamination 95/000,413) (regarding U.S. Patent No. 7,167,625). On August 12, 2013, this Court summarily affirmed the judgment pursuant to Fed. Cir. R. 36 in both of these prior appeals.

The third related reexamination is currently on appeal to this Court. *See* Appeal No. 2013-1442 (Reexamination 95/000,415) (regarding U.S. Patent No. 6,925,242).

The patent that is at issue in this appeal, as well as the other three above-mentioned patents, are the subject of a patent infringement action pending in the United States District Court for the District of Minnesota, *ADC Telecommunications, Inc. v. Panduit Corp.*, Civil No. 07-cv-04452 (DWF/SER). The Minnesota action has been stayed pending the outcome of the reexaminations.

JURISDICTIONAL STATEMENT

The Board had jurisdiction pursuant to 35 U.S.C. § 134, and this Court has jurisdiction to hear this appeal and cross-appeal pursuant to 35 U.S.C. § 141 and 28 U.S.C. § 1295(a)(4)(A). ADC timely filed its cross-appeal from the Board's March 27, 2013 decision, as provided in 35 U.S.C. § 142 and 37 C.F.R. § 1.983.

COUNTER-STATEMENT OF THE ISSUES

ADC's Cross-Appeal:

- I. Did the Board err in rejecting claim 1 under § 102 based on Meyerhoefer?
- II. Did the Board err in rejecting claims 1 and 36 under § 102 based on Scheuermann?
- III. Did the Board err in rejecting claims 1, 36, 74 and 77 under § 103 based on Staber plus Meyerhoefer or Scheuermann?

Panduit's Appeal:

- I. Whether the Board was correct in affirming the Examiner's refusal to adopt the proposed § 102 rejection of claims 1-5, 7, 8, 18, 21, 22, 32, 35-49, 51-54, 56-62 and 64-67 based on Long?
- II. Whether the Board was correct in affirming the Examiner's refusal to adopt the proposed § 103 rejection of claims 8-10, 12-21, 37-49, 51, 57-62 and 64-67 based on Long in view of Zetena?¹
- III. Whether the Board was correct in affirming the Examiner's refusal to adopt the proposed § 103 rejection of claims 8-10, 12-22, 37-49, 51-52, 57-62 and 64-67 based on Zetena in view of Scheuermann and Long?

¹ Panduit's statement misleadingly suggests that Panduit proposed a rejection of claims 22 and 52 based on Long in view of Zetena. No such rejection was ever proposed by Panduit or considered by the Board for claims 22 and 52. A15-16; A201; A237.

COUNTER-STATEMENT OF THE CASE

On November 6, 2008, Panduit filed a request for *inter partes* reexamination of U.S. Patent No. 6,597,854 (the '854 patent). A717. The request sought reexamination of virtually all of the claims and proposed multiple rejections. One of Panduit's proposed rejections was that claims 1-5, 7-8, 18, 21-22, 32, 35-49, 51-54, 56-62 and 64-67 are invalid under § 102 based on Long. A720.

On January 12, 2009, the Patent Office granted the reexamination request and issued an Office Action. A704; A688. In the Office Action, the Examiner adopted some of Panduit's proposed rejections, but refused to adopt others, including Panduit's proposed rejection based on Long. A690.

On March 12, 2009, ADC filed an Amendment and Response. A648. ADC amended certain claims, and added thirteen new dependent claims (i.e., claims 68-80). A649-63. Panduit filed a Reply, responding to the Examiner's refusal to adopt certain of Panduit's proposed rejections, and arguing that ADC's amendments did not overcome the Examiner's adopted rejections. A615.

The Examiner issued an Action Closing Prosecution ("ACP"). A585. In the ACP, the Examiner withdrew some of the original rejections, maintained other rejections, and again refused to adopt any of Panduit's other proposed rejections, including Panduit's proposed Long rejection. A590. Following the ACP, many of

the claims were allowed, including independent claims 2, 8, 54 and 57, while other claims stood rejected. A609.

The Examiner subsequently issued a Right of Appeal Notice (“RAN”) which adopted all the findings from the ACP. A566.

Each of the parties appealed portions of the Examiner’s decision. A521; A461.

On June 22, 2011, the Board issued its Decision on Appeal. A37. The Board reversed some of the Examiner’s rejections, and affirmed other rejections. In addition, the Board issued new grounds of rejection that had not been made by the Examiner. A84-85. The Board also affirmed the Examiner’s decision not to adopt Panduit’s proposed § 102 rejection based on Long. A70-71; A84. Following the Board’s decision, independent claims 2 and 54 were allowed and the remaining independent claims stood rejected.

ADC reopened prosecution to address the Board’s new grounds of rejection. A240. In reopened prosecution, ADC amended independent claims 8, 22, 37, 52 and 57 and explained how the amended claims overcome the Board’s new grounds of rejection. A241-64. In addition, ADC submitted testimony by declaration from a person of skill in the art. A3000-04.

Panduit submitted comments in response to ADC’s amendment. A200. Panduit did not dispute that ADC’s amendments overcame the Board’s new

grounds of rejection. Instead, Panduit proposed two new rejections (listed below), each based on a new reference (Zetena) that had not been raised previously during reexamination:

1. Claims 8-10, 12-22, 37-49, 51, 52, 57-62 and 64-67 are obvious over Zetena in view of Scheuermann and Long; and
2. Claims 8-10, 12-21, 37-49, 51, 57-62 and 64-67 are obvious over Long in view of Zetena.

A204; A237. In addition, Panduit reargued the proposed § 102 Long rejection that the Examiner and the Board had already refused to adopt, and submitted new evidence (e.g., dictionary definitions and a declaration) to support its re-argument of the Long rejection. A227. In particular, Panduit argued that amended claims 8, 18, 21, 22, 37-49, 51, 52, 57-62 and 64-67 are anticipated by Long even though the Board had already found that these claims (prior to ADC's narrowing amendment) are patentable over Long.

On February 23, 2012, the Examiner issued a determination finding that ADC's amended claims are patentable, including a finding that the amended claims are patentable over Panduit's newly-proposed rejections based on Zetena. A179; A197-98. Further, the Examiner found Panduit's re-argument of the proposed § 102 Long rejection was improper because it did not relate to the new grounds of rejection or to ADC's amendment, and the Board had already decided not to adopt the proposed Long rejection. A196-97. Therefore, the Examiner

refused to enter into the record or consider Panduit's new evidence (the dictionary definitions and declaration). A197.

On June 8, 2012, the Board issued a decision affirming the Examiner's determination. A13.

On March 27, 2013, the Board issued a decision on rehearing denying Panduit's request to modify its previous decisions. A1.

COUNTER-STATEMENT OF THE FACTS

A. The Declaration of David Rapp

ADC invites the Court to review the Declaration of David Rapp, who provides an uncontroverted and detailed review of the context to the invention, the invention, and the benefits of the invention. A3000-04.

Mr. Rapp's background qualifies him as a person of skill in the pertinent art. He has hands on experience with the '854 invention, which he refers to as the Express Exit or Express Exit trough. Mr. Rapp has 13 years experience with products for routing and connecting fibers, including hands-on experience designing and developing fiber routing systems, and managing ADC's fiber routing product line that includes the Express Exit trough. Mr. Rapp is also the named inventor on more than 25 patents relating to cabling systems. A3000.

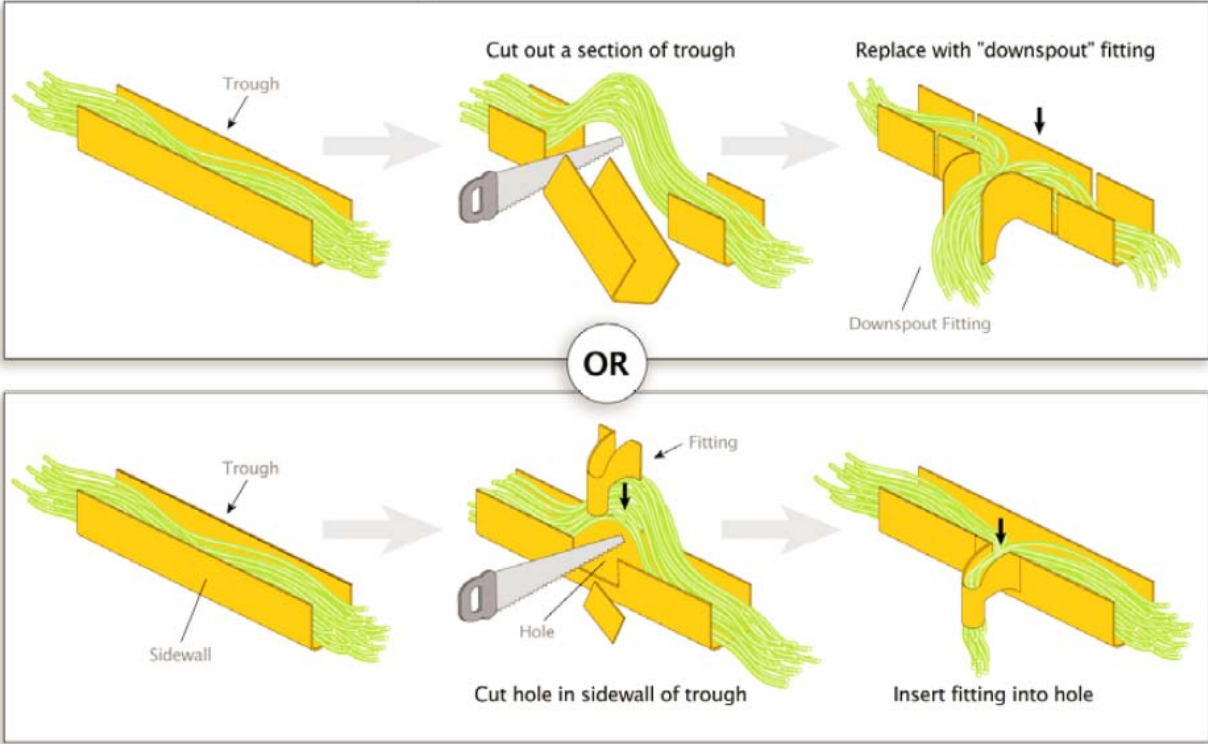
B. The Context to the '854 Patent

The '854 patent discloses a cable exit trough that routes optical fiber cables out of a lateral trough and downward (toward the floor) to telecommunication equipment. *See* A115 (col. 2:46-54); A3000-01 (¶ 5). Fiber routing systems guide and protect cables routed between telecommunications equipment. *Id.* In a typical installation, long, straight trough sections run horizontally (i.e., referred to as lateral troughs, *see* A3000-01(¶ 5)) near the ceiling above equipment racks, and cables may be routed from equipment on a first rack, up to the lateral trough

sections near the ceiling, into and then horizontally through the lateral trough sections until they reach a point above a second equipment rack, and then out of the lateral trough and down to the desired equipment. A115 (col. 1:19-41); A3000-01. As explained by Mr. Rapp, the ‘854 invention relates to transitioning fiber cables out of the lateral trough sections. A3000-01.

Rapp discusses design drivers and constraints facing those designing products to transition fiber cables out of lateral trough sections (A3001 (¶¶ 6-8)), including: the importance of avoiding cable bending where possible; the limited clearance between the lateral troughs and the ceiling; and the long runs of fiber cable from the ceiling down to equipment, which, due to the force of gravity, can result in relatively heavy loads or pressure on the cables and sides of the lateral trough at the point where the cable transitions from horizontal to vertical.

Rapp also explains that, prior to the Express Exit trough of the ‘854 patent, exit systems for lateral troughs relied on defining a path through the sidewall of the lateral trough. A3001-02 (¶¶ 9-10). Rapp explains two known approaches (illustrated below).

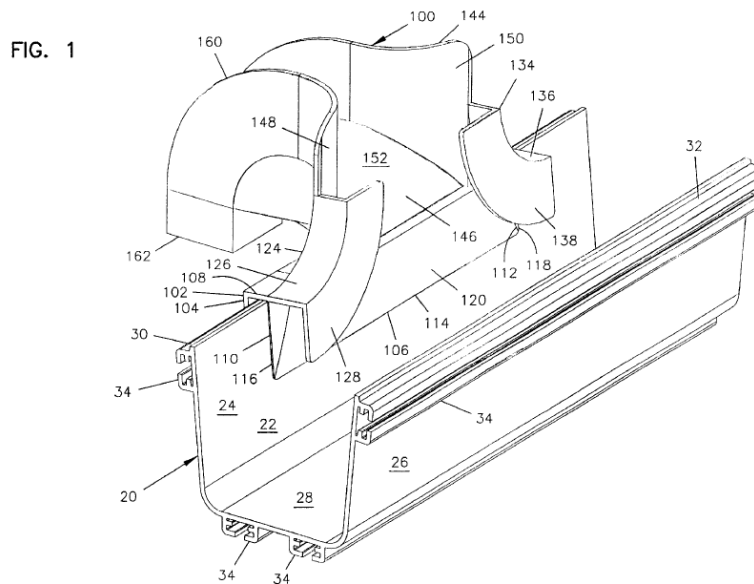


A3002. *See also* A3009 (fig. 8) (this patent was incorporated by reference into the ‘854 patent, see A115 (col. 2:57-62)); A3031 (col. 6:36-49); A3042 (“DROP-OFF CONNECTOR”); A3047 (element G).

By defining a path through the sidewall of the lateral trough, these cable exit systems created a direct path to the destination equipment, and therefore minimized bending of the optical fiber cables. With this approach, such cable exit systems did not require additional space above the cable routing system in the ceiling area above the equipment racks.

C. The Invention

In contrast to the cable exit systems which routed the cables through the sidewall, the '854 inventors developed a system (shown below), that initially directs the optical fiber cables in an upward direction (i.e., in a direction that is the opposite of the end destination below the lateral trough).



A99. This indirect-path approach required more bending of the fiber cables. It also required that space above the cable exit system be used. For these reasons, Mr. Rapp explained in detail that the '854 invention was counterintuitive. A3002 (¶ 11).

The '854 patent includes nine independent claims: 1, 2, 8, 22, 36, 37, 52, 54 and 57. Except for claims 1 and 36 (the subject of ADC's cross-appeal), all of these independent claims stand allowed. Claims 8, 22, 36, 37, 52, 54 and 57 are directed to a cable routing system with a cable exit trough mounted (or mountable)

to a lateral trough. A241-50; A649-63. Claims 1 and 2 are directed to a cable exit trough that is mountable to a lateral trough section. A649-50.

All of the independent claims recite a “cable exit trough” that provides an exit pathway for routing cables over (as opposed to through) the sidewall of the lateral trough section. Some of the claims (e.g., claims 1, 22 and 36) recite that the exit trough be “mountable” or “releasably mountable” to the lateral trough section “without cutting” the lateral trough sidewall. Claims 2, 22, 52 and 54 further require that the exit trough include “an upper surface” with a curved portion that leads upwardly relative to the lateral trough. A241-50; A649-63.

D. The Benefits of the Invention

Despite violating the design drivers discussed in the Rapp Declaration, the exit trough of the ‘854 patent proved to be very successful. Mr. Rapp explains:

Despite the reasons discussed above, for example, in paragraph 11[of my declaration] that suggested that the invention of the Express Exit troughs would not be desired by customers, the exact opposite has proved to be true. These devices have enjoyed great commercial success. The ADC Express Exit troughs have become critical to successful marketing of ADC’s cable routing system. The benefit of quick installation, without the need to cut slots, and the ability to reposition the exit troughs without leaving a hole or slot in the horizontal trough, motivate customers to insist that routing systems include these type of components before committing to a manufacturer’s routing system.

A3003 (¶ 15).

By using the space above the lateral trough and avoiding cutting the lateral trough sidewall, the '854 inventors created a new exit trough system that is not destructive of the lateral trough. No mounting structure is inserted through cut-outs or holes through the sidewall, thus minimizing risk of damage to the fibers in the trough. The disclosed exit trough routes the fiber cables first upwardly (away from the end destination) and then over the top of the lateral trough sidewall, not through it. The exit trough includes a combination of curved surfaces for safely transitioning the cables over the top of the lateral trough sidewall.

E. References Applied by the Board

For the independent claims that stand rejected (i.e., independent claims 1 and 36), the Board applied three references: Scheuermann (A831-35), Meyerhoefer (A3048-57) and Staber (A3058-62).

1. Scheuermann

Of the applied references, only Scheuermann is directed to a cable exit trough that routes cables out of a *lateral* trough.

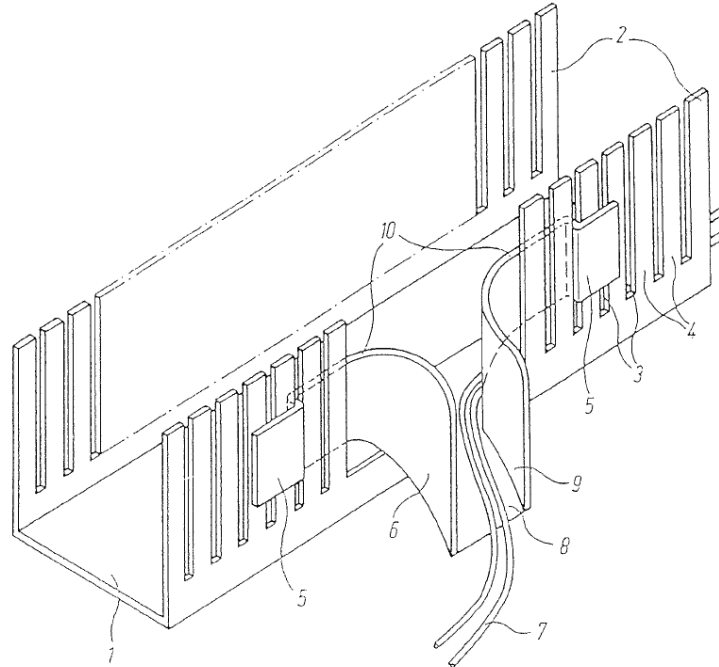


Fig. 1

A835. Scheuermann discloses:

- sidewalls (2) cut with slots (3) (A835; A832 (ll. 1-13));
- a “narrow area” or flange of sidewall remains under the slots (*see, e.g.*, A835; A832 (ll. 5-9); A833 (ll. 1-2));
- tongues (4) broken off the sidewall to create a larger opening for positioning cable guide within the cable duct (A833 (ll. 6-9)).

Scheuermann does NOT disclose:

- mounting without cutting the lateral trough section (required in claims 1 and 36); and
- routing cables over the top edge of a trough sidewall (required in claims 1 and 36).

2. Meyerhoefer

Meyerhoefer is directed to a device for routing cables out of a *vertical* trough and sideways to equipment sitting outside the vertical trough sidewall.

A3048 (Abstract).

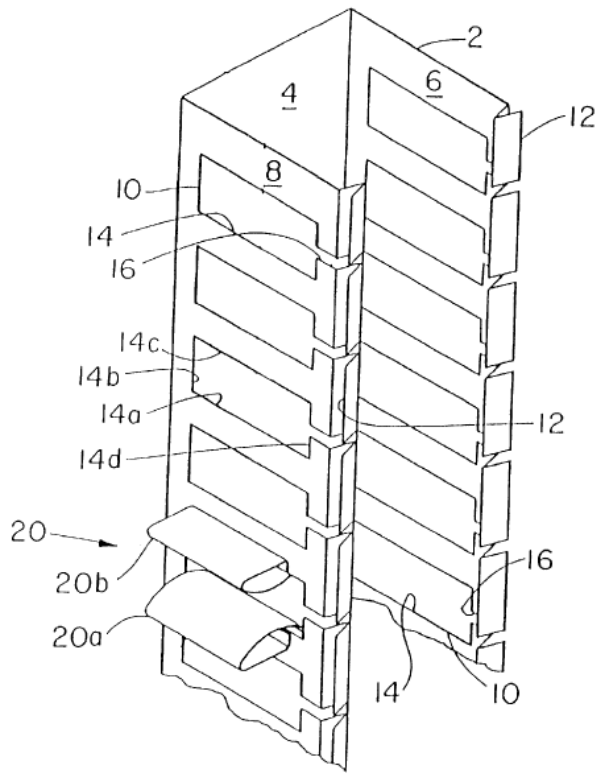


FIG. 1

A3049, 52. Meyerhoefer discloses:

- a vertically oriented, channel member (2) with slots cut into the sidewalls (A3048 (Abstract); A3049; A3055 (col. 1:57-59));
- a device (20) that fits into a slot so that cables may exit the channel member through the slots around a narrow, sideways extending flange (A3052; A3056 (col. 3:39-45)).

Meyerhoefer does NOT disclose:

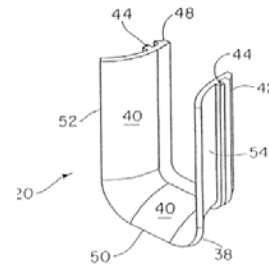
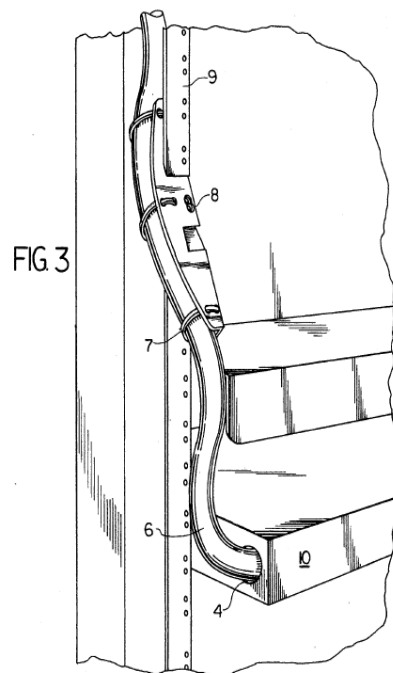
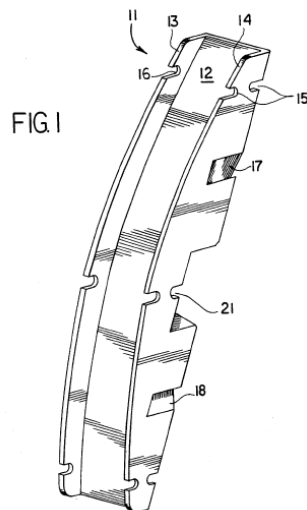


FIG. 6

- an upstanding side of a lateral trough section (required in claims 1 and 36);
- mounting without cutting the top edge and upstanding side of the lateral trough section (required in claim 1 and 36); and
- routing cables over the top edge of a lateral trough section (required in claims 1 and 36).

3. Staber

Staber is directed to a cable bridge that protects a descending cable around a sideways-protruding flange of an equipment rack. A3058 (Abstract); A3062 (col. 1:5-17); A3061.



A3059, 61. Staber discloses:

- a cable bridge having a convex surface (12) and two straight, parallel sidewalls (13, 14) that route a descending cable around a sideways protruding flange along the side of an equipment rack (A3058 (Abstract); A3061; A3062 (col. 1:5-17));

- an elongated, linear design that gradually approaches the sideways flange (9) from an acute angle (A3061);
- angled slots (17, 18) underneath the curved surface receive the flange (A3060); and
- mounting to the flange using a screw (8) inserted through a side hole formed in the bridge and received into a hole cut in flange (9) (A3061; A3062 (col. 2:16-17)).

Staber does NOT disclose:

- an upstanding side wall of a lateral trough section (required in claims 1 and 36);
- two curved sidewalls extending from a bottom trough surface (required in claim 1);
- at least one sidewall curved to maintain a minimum bend radius (required in claim 36);
- mounting an exit trough to a lateral trough section without cutting the top edge and upstanding side of the trough section (required in claims 1 and 36);
- routing cables over the top edge of a trough sidewall (required in claims 1 and 36); and
- an exit pathway that extends transversely over the a trough sidewall (required in claim 1).

ADC'S CROSS APPEAL
SUMMARY OF ARGUMENT

By its claim constructions, the Board improperly removed the orientation limitations from claims 1 and 36. Lateral trough was construed to read on a trough that runs in any direction, effectively removing “lateral” as well as other recited orientation limitations such as “upstanding,” “top edge,” and “upwardly . . . over . . .” from the claims. Lateral trough means a trough that extends sideways, i.e., horizontally, the only construction that makes sense in view of the other recited orientation language. Neither Staber, Scheuermann, nor Meyerhofer discloses a cable exit pathway that extends over the top edge of the upstanding side of the lateral trough section. Therefore, all of the § 102 and § 103 rejections of claims 1 and 36 should be reversed.

Limited to claim 1, the Board also failed to give patentable weight to the “wherein” clause on the grounds of “mere intended use.” The wherein clause includes orientation language that necessarily defines structural limitations for the exit trough’s mounting structure and cable exit pathway walls.

Staber discloses one and only one way to releasably mount the bridge to the flange. That way includes cutting holes in the flange for receiving a screw to secure the bridge to the flange. The Board avoids these facts by adopting flawed claim constructions of “releasably mountable” and “without cutting”. “Releasably

mountable” was construed to “not require that the trough is fastened or otherwise secured to the trough edge.” Properly construed, mounting must require some means to hold the device in place *for use*. As to mounting “without cutting,” the Board improperly inserted a time limitation so that “without cutting” only refers to cutting that takes place during installation. Thus, “without cutting” would cover any device that requires cutting of the side wall for mounting, provided that cutting did not take place during installation. None of the references discloses releasably mounting “without cutting” as properly construed. Therefore, all of the § 102 and 103 rejections of claims 1 and 36 should be reversed.

In its § 103 determination, the Board failed to articulate logical reasoning as to why the skilled artisan, guided by only the prior art references and the then-accepted wisdom in the field, would have made the required changes. The Board failed to apply established rules to guard against impermissible hindsight. That failure resulted in an obviousness determination impermissibly biased by hindsight.

ARGUMENT

STANDARD OF REVIEW

This Court reviews the Board’s legal conclusions *de novo*. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). Such legal conclusions include issues of claim construction. *In re NTP, Inc.*, 654 F.3d 1268, 1274 (Fed. Cir. 2011) (citation omitted). Board factual findings are reviewed for substantial evidence. *In re Gartside*, 203 F.3d at 1316.

Substantial evidence “is something less than the weight of the evidence but more than a mere scintilla of evidence.” *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000). This means “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

I.

THE BOARD'S CLAIM CONSTRUCTION ERRORS AND CORRESPONDING FLAWED FACT FINDINGS

In its decision (A37-87), the Board made several claim construction errors material to its conclusion that claims 1 and 36 are invalid.

A. The Board Erred in Construing Lateral Trough to Read on a Trough That Runs in Any Direction

The Board erred in concluding that *lateral* means “of or pertaining to the side” and “does not restrict the direction in which the trough must run.” A54-55. By this interpretation, the Board removed the word *lateral* from the claims and rendered nonsensical all the orientation claim language tied to the lateral trough such as *upstanding side, top edge, over the top edge of the upstanding side, and upwardly . . . and over*. These orientation (or directional) claim limitations only make sense when *lateral* trough is understood to refer to a trough that is horizontal.

The Board's misinterpretation of *lateral* and its disregard for the orientation claim limitations paved the way to read the claims on Staber's flange that protrudes sideways from a vertically-standing rack. The Board erroneously concluded that “the orientation of Staber's flange is not dispositive because the claimed lateral trough reads on a trough that runs *horizontally, vertically, and in other directions*.” A55 (emphasis added). Under this construction, there is no difference between the

“trough” and “lateral trough.” The Board has therefore effectively removed lateral from the claims.

The plain meaning of “lateral” means extending to the sides. “To the sides” is another way to say horizontal. A lateral trough, therefore, means a trough that extends or runs sideways, i.e., horizontally. This is consistent with how those skilled in the art use the term “lateral trough,” as demonstrated by the declaration of Rapp.

The routing systems employ sections of extruded troughs that run horizontally or parallel to the ground and that are coupled together using couplers or other fittings to create continuous cable pathways. Optical fiber cables are routed vertically upward from a first equipment panel in a telecommunications rack **to the horizontal troughs (we often refer to them as “lateral” troughs[]), then horizontally through the lateral troughs,** then downward again vertically to a different equipment panel where a connection is made. The invention of the Express Exit relates to transitioning fiber cables out of the horizontal trough systems and into the vertical direction.

A3000-01 (¶ 5) (emphasis added). Similarly, Rapp uses the term *lateral* interchangeably with *horizontal* when he explains the unique problems associated with routing cables out of lateral or horizontally-running troughs. At paragraph 8, for example, Rapp states:

Where cables must support the weight of long lengths of vertical cables, there is increased risk of damage to the cables where they last touch or are supported by **the horizontal troughs**. Related to this point, structure that would extend the fiber cables laterally away from the trough section before dropping downward complicates supporting the cables. Structure that carries the cable away from **the lateral trough** places the lever point where the weight of the cables will be

felt at the end of a longer lever arm. The longer the lever arm, the more difficult it is to support properly.

A3001 (emphasis added).

There is a significant distinction between a lateral (horizontal) trough and a vertical trough. In his declaration, Rapp highlighted this distinction when he discussed how the weight of vertically hanging cables that have been routed out of a *lateral* or *horizontal* trough poses a unique set of problems. First, the weight of the long lengths of cables hanging outside the trough and running vertically from the ceiling down to equipment panels below creates a heavy load or pressure point on the fragile optical fibers where they transition out of the trough. The direction of this pressure (downward) pulls the fragile fibers against the top edge of the upstanding side wall. The top edge of an upstanding side wall essentially becomes like a knife-edge and the downward pressure caused by the weight of the long cables pulls the fibers against that sharp edge of the upstanding wall. Second, the weight of the cables pulling down creates a “lever arm” that complicates supporting the cables. This is of particular concern for lateral troughs because the top edge of the upstanding side is by definition supported only by what is beneath it. In other words, there’s nothing above it to help resist the downward pull of the weight of the cables. As pointed out by Rapp, adding structure such as an exit device that carries the cable away from the lateral trough operates to lengthen the lever arm because it moves the lever point where the weight of the cables is felt to

a point further away from the lateral trough. By lengthening the lever arm, it is more difficult to support the cables on the lateral trough because more strain is placed on the upstanding side wall of the lateral trough.

But gravity, of course, pulls down, not sideways. Therefore, routing cables *around* a sideways protruding flange does not pose these same problems. The force of gravity does not pull a descending cable sideways against a side edge of a sideways protruding flange, and it is easier to support cables around a sideways flange. These differences further reinforce why one skilled in the art would not say “an upstanding side” is the same as or reads on a sideways flange. Yet, under the Board’s construction, they are all the same, a finding that ignores the real world.

The specification reinforces that *lateral* means *horizontal* by explaining that cables are “extending generally horizontally to the ground through lateral trough section 20 . . .” A20 (col. 3:62-64). That the disclosed lateral troughs are described as carrying cables horizontally is dismissed by the Board, stating that it would be “improper to read limitations from the Specification into the claims, **absent language in the claim which would direct such a narrower interpretation.**” A55 (emphasis added). While the Board accurately restates this principle of the law, by ignoring multiple and repeated orientation language in the claim as well as the plain meaning of the word “lateral,” the Board did not properly apply it.

The Board's Decision does not address any of ADC's arguments concerning orientation claim language tied to the "lateral trough." Claim 1 recites that the lateral trough has an "**upstanding** side," that terminates at "a **top** edge," and that cables routed into the exit trough (which is mounted to the lateral trough) are "routed **upwardly** from the lateral trough section **over** the **top** edge of the lateral trough section." A649. These references to "upstanding," "top edge," and "upwardly . . . over . . ." make sense when the original orientation of the trough as a *lateral*, i.e., *horizontal* trough is understood.²

By construing the term *lateral* to read on "horizontal, vertical, or in other directions," the Board erased the orientation language recited the other portions of the claim. This paved the way for the Board to read "upstanding side" on Staber's "sideways" protruding flange. Likewise, the Board enabled "over the top edge of the upstanding side" to read on "around the side of the sideways protruding flange" of Staber's rack. Seemingly, there is nothing in the Board's interpretation to prevent the Board from reading the claim limitation on routing cable *below* the *bottom* edge of a *downwardly* protruding flange—the very opposite of the claim language. These findings are not reasonable. They serve to confirm that the Board's construction of "lateral trough" is legally wrong.

² Claim 36 includes similar orientation language. A655-56.

B. The Sideways Flange of the Staber Rack Is Not an Upstanding Side

Citing Staber at col. 1:6-15 (A3062), the Board acknowledged the orientation of Staber’s standing equipment rack and protruding “side flanges”:

FF1. Certain **equipment racks** used in the telephone industry have narrow protruding **side flanges**. Because these racks are used to house telephone equipment, it is sometimes necessary to route cables past the exposed flanges.

A45 (emphasis added). Therefore, whatever rack structure was found to form a trough,³ the Board is not disputing that it runs vertically, and that the flange protrudes sideways from that vertically running structure.

This finding should have been dispositive of the asserted 103 rejection, requiring the Board to reverse the Examiner’s the 103 rejection. Because Staber discloses only a sideways flange, it (like Scheuermann and Meyerhoefer) also does not teach a cable exit trough defining a cable exit pathway that extends over the top edge of the *upstanding side* of a lateral trough section as recited in claims 1 and 36. On this basis alone, the Board should have reversed the obviousness finding.

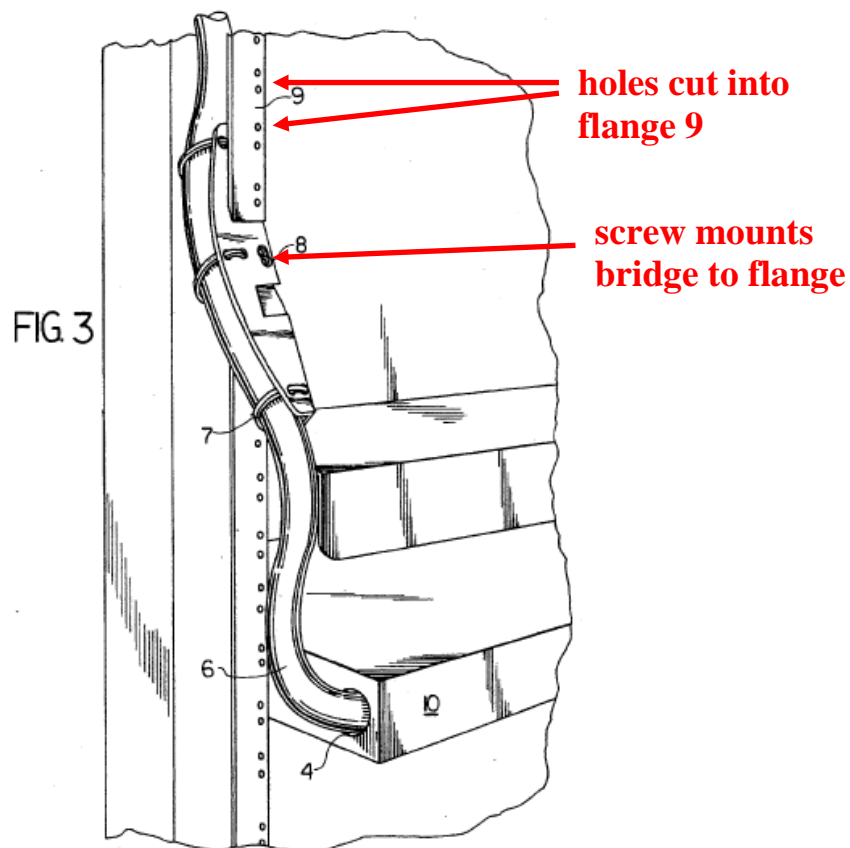
C. The Board Erred in Construing “Releasably Mountable” and “Without Cutting”

Claims 1 and 36 require that the exit trough be “releasably mountable” to the lateral trough section “without cutting” the top edge and corresponding upstanding side. By designing an exit trough that could be releasably mounted to the lateral

³ ADC disputes that the rack defines a trough at all.

trough without cutting the lateral trough, the '854 system allows mounting without weakening the trough and allows an installer to quickly and efficiently reconfigure the system when desired.

Staber discloses only one way to releasably mount the bridge to a flange that protrudes sideways from the vertical rack. The Staber bridge includes slots to receive the flange, and those slots are used *with screws* to mount the bridge to the flange. Holes are cut into the flange (“flange holes”) to receive the screws and secure the bridge to the flange. As shown in Fig. 3 below, the bridge (a plastic piece) also has pre-formed holes (“bridge holes”) that correspond to the flange holes. A3061.



Given that the flange protrudes sideways and runs vertically, simply placing the bridge on the flange (and doing nothing more) does not mount the bridge because without the screw gravity will cause the bridge to slide down the vertical flange or simply fall off.

Staber suggests that providing the bridge with pre-formed holes (matching those provided in the flange) is optional. In discussing the features of the bridge, Staber states: “*Side holes* may be used to seat a screw holding the cable bridge on an exposed flange.” A3062 (col. 2:16-17) (emphasis added). Staber never states that using the flange holes is optional, nor does Staber state or otherwise suggest that screws for securing the bridge to the flange are optional. The screw is used with the holes in the flange whether or not the plastic bridge includes a *pre-formed* hole for seating the screw (presumably because Staber discloses the bridge is made of plastic (A429 (col. 2:32-35)) and a screw can be easily driven through the plastic cable bridge at the time of install). Ultimately, how the bridge hole is provided is irrelevant. What is relevant is that Staber discloses only one way to releasably mount the bridge to the flange. That way includes cutting holes in the flange for receiving a screw to secure the bridge to the flange.

The Board side steps these facts by adopting flawed claim constructions of “releasably mountable” and “without cutting”.

1. The Board erred in construing “releasably mountable” to read on a Staber bridge that is NOT “fastened or otherwise secured” to the flange

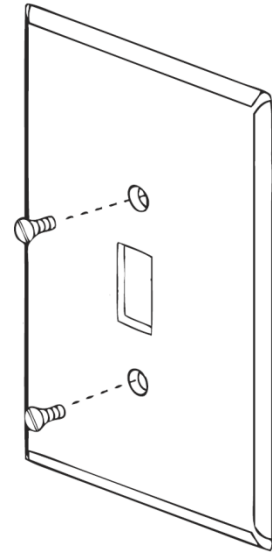
The Board construed “releasably mountable” to mean that the exit trough is “placed into position on the lateral trough through a structural element which permits it to be removed after installation.” A43-44. Bizarrely, however, the Board added that releasably mountable “does not require that the trough is fastened or otherwise secured to the trough edge.” A45. This cannot be a proper construction particularly when it is applied to Staber which shows the bridge being used on a side flange of a rack.

Without using the screw inserted through the bridge and into the flange hole, Staber’s bridge would fall to the floor. Mounting must require some means to hold the device in place *for use*, and Staber only discloses one way to hold the bridge in position for use: holes cut into the flange to receive the screws that hold the bridge to the flange. Otherwise, the device would be completely inoperable for its intended use. It would simply fall off.

The drawing shown below, a light switch cover plate, illustrates by analogy the problem with the Board’s construction of *releasably mountable*. The cover plate has a rectangular slot in the middle for receiving a light switch in a similar way that Staber’s cable bridge defines a slot for receiving the edge of the flange. Without the rectangular slot in the middle, the cover plate could not be mounted.

But the rectangular slot in the middle, although necessary for mounting, is not that which actually mounts the cover plate.

Like Staber's cable bridge, the cover plate has holes for receiving mounting screws that secure the cover plate over the light switch. Under the Board's construction, "releasably mountable" would read on merely aligning the cover plate over the light switch (and not inserting the screw to secure it



in place). This flawed reasoning ignores the fact that without the mounting screws when the person releases the cover plate, it will fall to the floor.

Even the Examiner recognized that Staber requires the screws to releasably mount the cable bridge to the flange, stating:

The slots 17, 18 [on the underside of the bridge] define U-shaped or L-shaped brackets (or corner sections or channels) for mounting the cable exit trough on the flange 9. An attachment member, i.e., *a screw* 8, *releasably mounts* the cable exit trough *to the flange 9*.

A571-72 (emphasis added). Because Staber relies on the screw to mount the cable bridge to the flange, it is inescapable that Staber's device relies on the screw holes that have been cut into the flange for mounting as clearly shown in the figure of Staber. The Board's construction should be rejected.

2. The Board erred in construing mounting “without cutting” to refer only to cutting *at the time of installation*, thereby reading the claim on Staber’s bridge that uses pre-cut mounting holes

The Board erred in construing “without cutting” to mean that “the lateral trough is provided in a form that does not require . . . making a change to it *during installation*, in order to attach the exit trough.” A45 (emphasis added). This interpretation includes a timing requirement that the trough not be cut only at the precise time that the exit trough is mounted to the lateral trough, i.e., “during installation”. Thus, “without cutting” would cover any device that requires cutting of the side wall for mounting, provided that cutting did not take place during installation.

First, there is no support in the ‘854 patent for this interpretation. The Board quotes portions of the specification. A45 (quoting A115 (col. 1:60-61)). However, these sections of the specification do not teach that the invention is dependent on whether or not the lateral trough is cut at the precise time that the exit trough is mounted to the lateral trough.

Second, the Board’s interpretation ignores the invention of the ‘854 patent. By designing an exit trough that could be mounted to the lateral trough without cutting the lateral trough, the inventors provided a system that could be quickly and efficiently reconfigured when desired without weakening the trough. A115 (col. 1:60-66). Without this feature, if the exit trough were to be moved to a

different location, the lateral trough would need to be repaired to prevent unwanted dust and debris from entering the trough through the left-over hole or slots cut into the side of the trough. This benefit of the invention is true whether the lateral trough has been cut two months prior to installation, two weeks prior to installation or at the exact time the exit trough is installed.

Third, the Board's interpretation is unreasonable because it adds limitations to the claims. The claims require releasably mounting "without cutting" the lateral trough. The Board rewrites the claim to say releasably mounting "without cutting at the time of installation."

Finally, the Board's interpretation brings ambiguity into the claim. Under the Board's interpretation the relevant inquiry is whether the modification occurs "during installation". Does this mean that the modification must occur contemporaneous with the mounting of the exit trough? Is this requirement (i.e., during installation) met if the trough section is cut 15 minutes before the exit trough installed? What if it is cut two hours or two days before the exit trough is actually mounted? There is nothing in the patent to provide instruction on these questions because, as explained above, it makes no difference when the cutting occurs.

D. The Board Erred in Construing Claim 1's *Wherein* Clause to Be Mere Intended Use

Claim 1 is directed to a cable exit trough that is mountable to a lateral trough section. In its Decision, the Board gave no patentable weight to the wherein clause (reproduced below) of claim 1.

wherein, when mounted to the lateral trough, the cable exit pathway extends transversely over the top edge of the upstanding side of the lateral trough section so that cable can be routed upwardly from the lateral trough section over the top edge of the lateral trough section.

A116 (col. 4:65 - col. 5:3). The Board incorrectly concluded that this claim language merely recited “intended use” and, therefore, was not given any patentable weight. A60-61.

Contrary to the Board’s assertion, the language at issue does not merely define an orientation of the exit trough. This language defines a structural relationship and limitation between the mounting structure on the exit trough (that makes the exit trough mountable to a lateral trough section) and the recited walls on the exit trough (that define the claimed cable exit pathway). In other words there is a relationship defined between two components of the exit trough itself: its mounting structure and the surfaces that create the cable exit pathway. That the relationship is measured by reference to an unclaimed element, the lateral trough section, is immaterial to whether a valid, structural limitation on the exit trough has been recited.

Unlike the facts of the cases cited by the Board, the claim language in question is not preamble claim language. The disputed language, for example, is not merely context language in the preamble such as “a boat for use on the water” or an exit trough “for mounting to a lateral trough”.

The clause at issue comprises 45 percent of the body of the claim and defines important structural features of the invention relating to the orientation and shape of the exit trough pathway when it is mounted to a lateral trough. The claim terms are important because they, through a description of exit trough features relative to the upstanding side of the lateral trough, provide the distinction between an exit pathway going through the sidewall (the direct path approach of the prior art) and an exit pathway that requires the fiber optic cables to be initially routed upward and then over the top edge of the sidewall of the lateral trough (the indirect approach resulting in more bending of the fibers and more exit pathway structure above the lateral trough).

By limiting the cable exit pathway, the wherein clause necessarily limits the shape and orientation of the structures recited in the claim that define the cable exit pathway, i.e., “a *bottom trough surface* and *two curved side walls* extending from opposite sides of the bottom trough surface . . . *define a cable exit pathway.*” A116 (col. 4:57-60) (emphasis added). The wherein clause, which also discusses the exit pathway, therefore, limits the shape and orientation of the bottom wall

structure and the two curved sidewall structures that define the cable exit pathway. These structures must be shaped and oriented relative to the exit trough's own mounting structure so that when the exit trough is mounted to a lateral trough section, the exit pathway they define routes over the top edge of the lateral trough section.

That the test for determining whether the structural limitations are satisfied relies on a relationship to a different unclaimed structure (the lateral trough) does not make the limitation any less structural or any less a valid limitation. *See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1575-76 (Fed. Cir. 1986) (finding a dimensional claim limitation on a travel chair written as “so dimensioned as to be insertable through the space between the doorframe of an automobile and one of the seats thereof” to state a valid claim limitation).

Likewise, language that “describes something about the structure of the apparatus rather than merely listing its intended or preferred uses” are structural limitations even if written using functional language. *See, e.g., Textron Innovations Inc. v. Am. Eurocopter Corp.*, 498 Fed. App'x. 23, 28 (Fed. Cir. 2012) (unpublished).

The Board's decision cites two cases for the proposition that language that merely states the purpose or intended use of an invention is generally not treated as limiting the scope of the claim. A60-61. Notably, both cases address limitations

that were only recited in the preamble, not in the body of the claim. The claims at issue, however, positively recite the disputed elements in the body of the claim.

The Board failed to analyze whether the wherein clause of claim 1 results in a structural limitation on the exit trough. As discussed above, because this language defines a structural limitation on the exit trough, the Board incorrectly disregarded this language when applying the cited references.

E. Because Claim 36 Is Directed to a System That Includes a Lateral Trough, the Board Did Not Find the *Wherein* Clause of Claim 36 to Be Mere Intended Use

The Board does not separately analyze whether claim 36 is obvious based on Staber in view of Scheuermann or Meyerhoefer. Instead, the Board refers back to its discussion of claim 1, stating:

ADC raises the same issues for claims 36 and 74 as already addressed above for claim 1 (ADC App. Br. 30-31) and the arguments for which were already found to be deficient.

A66.

This might leave the impression that the Board believed that the language of claim 36 requiring a “cable exit pathway extending over the top edge of the lateral trough” to be mere intended use. That is not the case, however. The Board expressly found this language to be a limitation of claim 36. The Board made this clear in its discussion of whether Meyerhoefer anticipates claim 36, where the Board correctly states that “Claims 22 and 36 are independent claims which

comprise a cable exit trough **and** a lateral trough section. Each of the claims ***requires a ‘cable exit pathway extending over the top edge’ of the lateral trough.***” A75 (emphasis added). The Board concluded that Meyerhoefer does not disclose that limitation and therefore did not anticipate claims 22 and 36. *Id.*

Therefore, the language of claim 36 requiring a “cable exit pathway extending over the top edge of the lateral trough” is not mere intended use, and cannot be used to affirm the obviousness rejection of claim 36.

II.

THE BOARD'S ANTICIPATION AND OBVIOUSNESS REJECTIONS OF CLAIMS 1 AND 36

The Board found Meyerhoefer and Scheuermann anticipate claim 1, and Scheuermann anticipates claim 36. The Board also found that claims 1 and 36 are obvious. For the obviousness rejection, the Board relied on Staber as the primary reference, and found that the person of ordinary skill in the art would have found it obvious to modify Staber's bridge to include the missing limitations of claims 1 and 36 in view of Scheuermann or Meyerhoefer.

None of the rejections should stand. Scheuermann, the only one of these three references that discloses a cable exit system for a lateral trough having an upstanding side wall, merely represents another example that follows the conventional wisdom of defining a path *through* the lateral trough's upstanding side wall by cutting. A3002, A3003-04 (¶ 16).

The Board erred in its application of the legal principles for determining anticipation and obviousness. The Board discarded established claim construction principles to erase limitations that none of the applied references disclosed. The Board in its obviousness analysis failed to apply the safeguards established by this Court to guard against the impermissible hindsight. The Board, for example, failed to give serious consideration to the Rapp declaration, which provides uncontroverted testimony on the merits of the invention.

A. The Anticipation Rejections of Claims 1 and 36 Based on Scheuermann or Meyerhoefer Should Be Reversed

1. When properly construed, neither of the references discloses releasably mounting “without cutting”

Meyerhoefer and Scheuermann unquestionably disclose exit devices that require cutting of the trough. That was the Examiner’s finding. A589, 91-92. The Board came to a different conclusion, but only by improperly importing a time limitation into “without cutting.” According to the Board, “without cutting” means “without cutting”, but only if that cutting takes place during installation of the exit device. A45; A78-79. As discussed above, that construction is legally erroneous. Scheuermann and Meyerhoefer disclose cutting of the trough, and therefore neither satisfies the “releasably mountable . . . without cutting” limitation. Moreover, even under the Board’s erroneous interpretation Scheuermann does not disclose “without cutting.” Scheuermann explicitly teaches in order to mount the cable guide device one or more of the tongues formed on the side of the duct must be broken off to create a space large enough to insert the cable guide device. A833 (ll. 6-11).

Neither Meyerhoefer nor Scheuermann teach “releasably mountable . . . without cutting”. The Section 102 rejections of claims 1 and 36 should accordingly be reversed.

2. When properly construed, neither of the references discloses a cable exit pathway that extends over the top edge of the upstanding side of the lateral trough section

Neither Scheuermann nor Meyerhoefer discloses a cable exit pathway “extending over” (claim 36) or “transversely over” (claim 1) “the top edge of the *upstanding side* of the lateral trough section so that cable can be routed upwardly from the lateral trough section over the top edge of the lateral trough section.” As discussed above, by ignoring the orientation language throughout claims 1 and 36, the Board improperly construed *lateral trough* to read on a trough that runs in any direction. The Examiner and the Board also failed to consider the material differences, discussed by Rapp, between lateral troughs and vertical troughs in the context of the ‘854 invention.

As explained above in Sections I.D and I.E, the Board has already agreed that Meyerhoefer does not teach this limitation. The only issue with respect to Meyerhoefer is whether the limitation as recited in claim 1 is mere intended use. As explained above, this language is not mere intended use, and, therefore, the Board’s rejection of claim 1 for anticipation based on Meyerhoefer must be reversed.

Scheuermann simply follows and reinforces the conventional wisdom of defining a path through the lateral trough’s upstanding side wall by cutting as illustrated in FIG 1 from Scheuermann reproduced below.

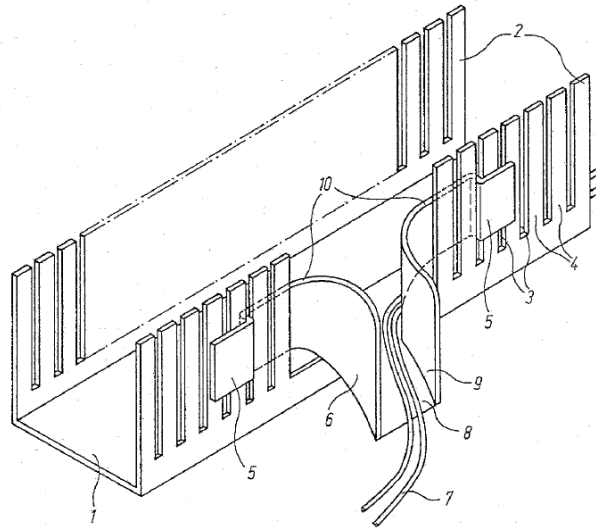


Fig. 1

As shown in Fig. 1, in Scheuerman slots are cut into the walls of a lateral cable duct and one or more tongues are broken off to widen the slot to make room for the guiding device that sits above a short flange that remains near the bottom of the trough. A835; A833 (ll. 6-11). With this arrangement, the cable pathway extends *through* the slot in the upstanding side, not over the top edge of the upstanding side.

Neither of the applied 102 references discloses a cable exit pathway that extends over the top edge of the upstanding side of the lateral trough section. The Section 102 rejections of claims 1 and 36 should be reversed.

B. The Section 103 Rejections Based on Staber in View of Scheuermann or Meyerhoefer Should Be Reversed

1. The 103 Rejections should be reversed for the same reasons the Section 102 rejections should be reversed

The obviousness rejection of claims 1 and 36 should be reversed at least for the reasons as the 102 rejections.

None of the cited references discloses an exit tough that is releasably mounted “without cutting”. Scheuermann and Meyerhoefer disclose cutting slots into the troughs for mounting (as discussed in Section II.A.1.), and Staber discloses cutting holes in a flange for mounting (discussed in Section I.C.).

Second, none of these references discloses a cable exit pathway that extends over the “upstanding side” of a lateral trough section. Scheuermann and Meyerhoefer both rely on slots *through* the side wall and, thus route cable through the side wall, not over it (discussed in Section II.A.1. above). Further, as discussed in Section I.B, Staber does not cure this deficiency. Staber does not show an upstanding side at all. The flange in Staber protrudes sideways from the rack. Staber’s bridge therefore does not cross an “upstanding” side.

2. The Examiner and the Board failed to apply established rules to guard against impermissible hindsight

The obviousness determination is inherently difficult because the decision maker has been taught about the claimed invention and is often exposed to many years of development since the time of the invention. The risk is that the decision

maker will use that knowledge of the invention as a guide through the maze of prior art and with the advantage of hindsight will reconstruct the claimed invention by combining various features lifted from selected references.

This Court has established a number of legal principles to guard against the risk of impermissible hindsight. The decision maker must consider, for example, any objective evidence of nonobviousness. *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.* 520 F.3d 1358, 1365 (Fed. Cir. 2008). The so-called teaching, suggestion or motivation (TSM) test, flexibly applied, also remains a guard against hindsight. *Id.* (“[T]hose teachings, suggestions, or motivations need not always be written references”). The references must also be considered in their entirety. The decision maker, for example, cannot selectively ignore or discard the disclosures in the references that diverge from the invention or that would otherwise discourage one skilled in the art from making a modification. As this Court noted, “[a]n inference of nonobviousness is especially strong where the prior art's teachings undermine the very reason being proffered as to why a person of ordinary skill would have combined the known elements.” *Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326 (Fed. Cir. 2009). Such facts and the strong inference on nonobviousness that flows from such facts must be accounted for by the decision maker.

In addition, as a guard against hindsight, “the analysis should be made explicit.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (“[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”). This requirement ensures that there is a record to review so that it can be determined whether the decision maker followed the rules to guard against hindsight.

As discussed below, the record here is scant on the Board’s reasoning. Instead, the Board reframed ADC’s arguments as challenging whether Staber was analogous art. A64. By such reframing, the Board side-stepped the merits and set up a paper tiger. After finding that all the references were pertinent, the Board noted that each reference is directed to “different structures.” *Id.* That finding of pertinent, yet differing structures according to the Board justified the ultimate conclusion that the claimed inventions were obvious.

As each of Staber, Scheuermann, and Meyerhoefer is directed to cable ducts, with differing structures, the evidence supports a finding that the level of skill in the art was such that the skilled worker could routinely make the type of modification suggested by the Examiner to produce an operable device (FF26).

A65-66.

To be clear, ADC never argued that Staber, or the secondary references, are nonanalogous art. All concern cable routing and bend-radius control and therefore are pertinent art. That finding, however, does not excuse the Board from examining the references in their entirety to understand the design drivers and other objective evidence, such as that contained in the Rapp declaration, that would have assisted the Board in its analysis of the issue from the point of view of one of skill in the art at the relevant time.

Further, the Board, in summarily concluding that “the skilled worker could routinely make the type of modification suggested by the Examiner to produce an operable device,” leaves the impression that we are talking about a single isolated change to Staber. That, however, is not the case. To convert Staber to the invention recited in claims 1 and 36, the required changes would include at least the following:

- the flange which protrudes sideways from the rack would need to be converted to an upstanding sidewall of a lateral trough section (required in claims 1 and 36);
- the two straight parallel side walls of the cable bridge would need to be replaced with two curved sidewalls extending from a bottom trough surface, as required in claim 1; for claim 36, at least one of the straight side walls would need to be replaced with a curved side wall;
- the mounting structure would need to be changed to something that mounts without cutting the top edge or upstanding side wall of the lateral trough (claims 1 and 36); and

- given that we are dealing with routing cables over the top edge of an upstanding side wall (and not around a flange in a vertical rack), the mounting structure and the cable exit path structure would need to be modified to ensure that the problems discussed by Rapp in paragraph 8 relating to weight of vertically hanging cables have been addressed.

For each of these changes, the Board was required to articulate logical reasoning why the skilled artisan, guided by only the prior art references and the then-accepted wisdom in the field, would have found it obvious. That did not happen, as illustrated by the examples discussed below in Sections II.B.2.a-c, and the resulting analysis is impermissibly biased by hindsight.

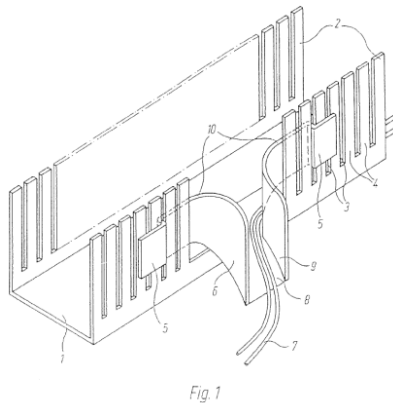
a. Staber's express design drivers would have discouraged replacing the straight side walls with the curved side walls of Scheuermann or Meyerhofer

To resolve this issue the decision maker must examine the underlying reasons why the Staber cable bridge has two *straight* side walls. In other words, what are Staber's design drivers? The same would need to be done for the secondary references, i.e., what are the reasons, or design drivers, for Scheuermann using two *curved* side walls? If that examination reveals that the respective design drivers are in conflict, or undermine each other such that one skill in the art would be discouraged from replacing Staber's two straight side walls with Scheuermann's two curved side walls, that would trigger a strong inference of nonobviousness.

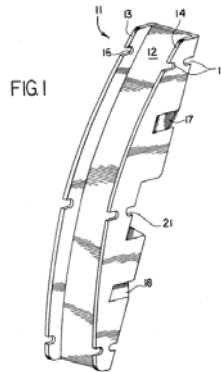
The reason Scheuermann and Meyerhofer include two curved side walls is to invite cables from either direction in the trough and transition them through a side

wall. As shown in Fig. 1 of Scheuerman, one curved sidewall provides a transition surface for cables coming from one direction while the other curved sidewall provides a transition surface for cables coming from the opposite direction.

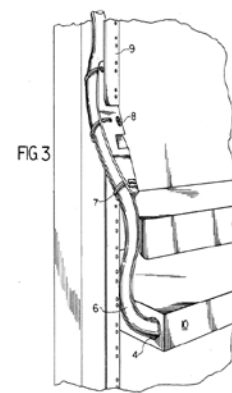
Scheuermann, Fig. 1



Staber, Fig 1



Staber Fig. 3



A835; A3059, 61.

Staber's design drivers are fundamentally different, and would discourage one skilled in the art from importing curved side walls. Figs. 1 and 3 of Staber are reproduced above (middle and right side). As discussed below, integral to each design driver is the use of a bridge that is *symmetrical on both ends with two straight, parallel side walls that frame the cable* and define a pathway around the flange.

Staber discloses a cable bridge for carrying a *single* cable around a flange, and he states that the device is improved because it provides crush protection with the straight sidewalls 13, 14 that frame the cable being transitioned. A3062 (col. 2: 28-31) ("The improved cable bridge advantageously . . . *provides crush protection*

through sidewalls 13, 14.”) (emphasis added). This design objective (crush protection) would be violated if Staber’s straight walls that tightly frame the individual cable are replaced with curved side walls that would no longer frame the individual cable. Only one wall would frame the cable. The other would be unused because it would flare in the opposite direction, i.e. away from the cable.

In addition, Staber emphasizes the importance of making the bridge both versatile and compact. Staber stresses that the compact design must work no matter which direction the cable approaches the flange. At col. 1:29-34, Staber states:

“In the improved embodiment, the first and second slots cross each other at an angle in order *to allow for one part to be used for either side of the equipment rack, or cable transition in either direction* over the flange, and to make the cable bridge as compact as possible.”

A3062 (emphasis added). How does Staber satisfy these design drivers? Staber uses *straight parallel walls* with each end being a mirror image of the other with alternative mounting slots on the underside that allow *aiming the straight side walls* at an acute angle in various directions from which the cable might come. With that design, either end can be used to receive the cable and transition it from left to right or right to left around a flange located on the right or left side of an equipment rack. Using the different mounting slots to “aim” the cable bridge in the desired direction of the cable, also allows the bridge to have a width that is only slightly greater than the diameter of the cable itself.

Following these design drivers would discourage one skilled the art from replacing the straight walls with Scheuermann's flared-out side walls. If oppositely curved side walls were incorporated into the design as shown in Scheuermann, the device becomes an order of magnitude wider and thus no longer compact. Further, because the Staber bridge is intended for a single cable, the vast majority of the increase in size, would be structure that would not be used in any given application. Routing a single cable through such a device would only make use of one of the curved side walls. In other words, compactness would be completely sacrificed for absolutely no gain in versatility.

b. Staber's express design drivers would have discouraged modifying Staber's mounting structure so that the cable pathway would extend transversely around the flange

Scheuermann invites cables from either direction in the lateral trough and transitions those cables through a side wall. So as not to favor cables coming from one side over the other, the cable exit pathway extends transversely over the short flange that remains after the side walls are cut.

As discussed above, Staber's quest is to develop a new design so that a single part can be used for all applications. To prevent over-bending of the cable while satisfying this design objective, Staber teaches to *aim the straight side walls at an acute angle* to the edge of the flange (using the alternative mounting slots on the underside) in the direction from which the cable is coming. If the cable was

coming from the opposite direction, using the same device, Staber would use the alternative mounting slots to aim the cable pathway at an acute angle in the opposite direction. Modifying Staber with new mounting structure so that the cable pathway extends transversely across the flange would violate Staber's design objectives of protecting the cables from over-bending via "aiming." Eliminating the acute angle (by making it transverse) points the bridge in a direction from which no cables will be approaching the flange. Doing so violates the design driver of protecting the cables, demonstrating that making this change to the Staber device would not be obvious to the skilled artisan. The Board fails to account for these design drivers of Staber. For this reason additional reason the Section 103 rejection of claim 1 should be reversed.

c. Any argument that the obviousness rejection could be based on Scheuermann in view of Staber is also wrong

In Staber, the flange that protrudes sideways is not an *upstanding* side of a lateral trough. As discussed above, this alone should be dispositive of the Section 103 rejection. That outcome does not change by any argument that relies on Staber as a secondary reference to Scheuermann. To be clear, that rejection was not made by the Board here, but the analysis would have boiled down to whether Staber's routing a cable around the side edge of a flange, would have been enough to motivate one of skill in the art to build something counterintuitive to the conventional wisdom of cutting the upstanding side wall to provide an exit

pathway that routes the cables *through* the side wall, as illustrated by

Scheuermann. A3001-03 (¶¶ 8-11, 13)

One skilled in the art would not see Staber as offering any alternative to Scheuermann, the only reference of the asserted combination to disclose a lateral trough. Scheuermann shows cutting the side walls down until only a flange remains. Staber also shows routing around a *flange*, in fact, an even shorter *flange*. Note the size of Staber's flange relative to the cable that traverses it. A3061. In other words, the skilled artisan would see that going from Scheuermann to Staber, Staber teaches one more way to traverse the flange at the bottom of Scheuermann's slot. Staber would even suggest that the flange to be traversed must be cut down even further.

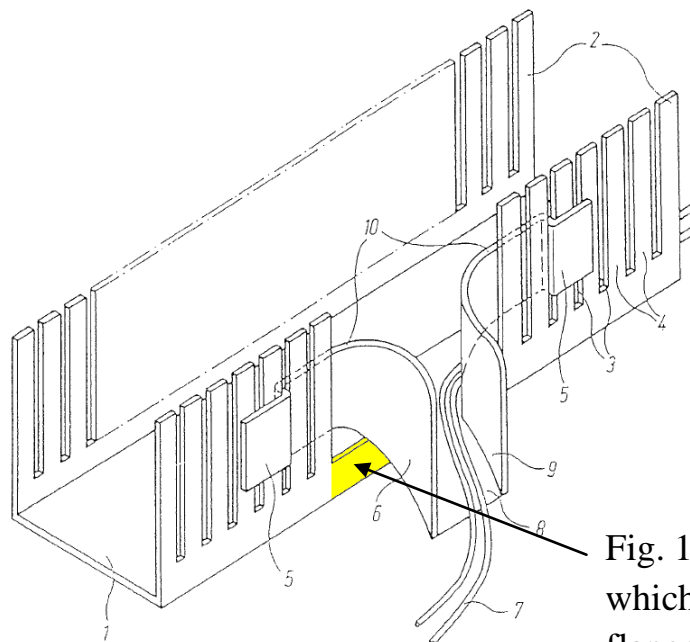


Fig. 1

Fig. 1 from Scheuermann
which shows the remaining
flange or “unslotted area.”
A835; A832 (ll. 5-9)

In these proceedings, Panduit has been quick to point out that claims 1 and 36 do not recite a minimum height for a trough side wall. That assertion misses the point. Scheuermann follows the conventional wisdom of cutting the upstanding side wall down so that only a flange remains, and the question under Panduit's argument is whether Staber would have motivated the skill artisan to do anything different. The answer is unquestionably no. Staber merely teaches one more way to transition around a flange. Staber does not teach any alternative to transitioning over a flange.

d. Neither the Examiner nor the Board gave serious consideration to the Rapp declaration

Regarding Rapp and the obviousness issue, the Examiner makes two substantive comments. First, the Examiner ignores Rapp's qualifications and dismisses his testimony as only his "uncorroborated opinions and assertions." Second, the Examiner side steps the merits of Rapp's testimony by relying on the flawed construction that "lateral" can mean any direction and the other orientation claim language such as "over the top edge" and "upstanding" can be ignored. Citing Staber and Long, neither of which discloses a lateral trough with an upstanding side wall, the Examiner states:

"Staber et al. and Long teach cables that are routed *up out of a cable trough and over the upstanding side* of the trough. Therefore, the claimed invention is not a radical departure from the solutions already developed by those in the same or similar fields of endeavor."

(emphasis added). The Board summarily affirms the Examiner without further comment or consideration of the Rapp declaration.

Rapp's background and experience unquestionably qualifies him to testify on the merits of the invention. A3000 (¶¶ 2-5). As one skilled in this art, Rapp explains the context to the invention and the unique set of problems associated with transitioning cables out of lateral troughs. Rapp testifies with detailed reasoning that the '854 inventors developed an exit trough system for lateral troughs that was counterintuitive in view of the conventional wisdom at the time of the invention. His testimony highlights the significance of the Board's error in not recognizing the difference between lateral troughs and vertical troughs and likewise refusing to acknowledge the orientation claim language such as "upstanding" and "over the top edge".

As the former manager of ADC's fiber routing product, Rapp is also qualified to testify about the commercial impact the invention on ADC's product line. On this issue, Rapp testifies that despite many reasons, all driven by the conventional wisdom, to suggest that the inventive exit trough system for lateral troughs would not be desired by customers, the exact opposite has proved to be true. The exit trough system has not only enjoyed great commercial success, but has also become critical to successful marketing of ADC's cable routing system.

Rapp is the only person of skill in the art to testify about the merits of the invention. Importantly, Panduit had the opportunity to submit testimony challenging Rapp declaration and did not. Rapp's testimony is uncontroverted.

PANDUIT'S APPEAL
SUMMARY OF ARGUMENT

The Board properly refused to adopt Panduit's proposed rejection under 35 U.S.C. § 102(b) based on Long. The Board properly construed the term *trough* to be a long, narrow open receptacle, gutter or channel. That construction is consistent with the plain, ordinary meaning of the word as well as the disclosure in the '854 patent. In contrast, Panduit's proposed interpretation is unreasonable because it effectively writes the word *trough* out of the claim by defining it to mean any generic structure that routes cables. The Examiner and the Board properly found that Long does not disclose a cable exit *trough* as properly construed. As the Board correctly found, there is no evidence whatsoever that the funnel-shaped part 5 either alone or in combination with other features disclosed in Long provides an open channel or receptacle for routing cables out of a lateral trough.

The Board also properly refused to adopt Panduit's proposed rejection under 35 U.S.C. § 103 based on Long in combination with Zetena. Panduit has not challenged the Board's finding that it lacked jurisdiction on the merits of this proposed rejection. Moreover, it fails on the merits at least for the reason that neither reference discloses a "cable exit trough."

The Board properly refused to adopt Panduit's proposed rejection under 35 U.S.C. § 103 based on Zetena in combination with Scheuermann and Long. There is no evidence that it would have been obvious to incorporate the claimed curved sidewalls or upper surface onto the Zetena device. Moreover, there is substantial evidence that it would *not* have been obvious because curved sidewalls perform a different function than the corresponding structure on Zetena, and adding curved sidewalls would eliminate the stated function of the Zetena device.

ARGUMENT

STANDARD OF REVIEW

The standard of review for Panduit's appeal is the same as it is for ADC's Cross-Appeal, discussed *supra*.

I.

THE BOARD DID NOT ERR IN REFUSING TO REJECT CLAIMS 1-5, 7, 8, 18, 21, 22, 32, 35-49, 51-54, 56-62 and 64-67 AS ANTICIPATED BY LONG

This Court should affirm the finding that Long does not anticipate these claims. As found by the Board, Long does not disclose a cable exit *trough* which is recited in each of these claims.⁴ Not only is there substantial evidence that Long does not disclose a cable exit trough, but this Court in a related appeal has already reviewed and decided this very issue.

A. The Board Properly Construed the Word “Trough” in the Claim Term “Cable Exit Trough”

The Board construed the term *trough* to mean a long, narrow open receptacle, gutter or channel. A69. The Board’s construction was informed by the specification’s disclosure of cable exit trough 100 in FIG. 1 (A99) and by a common dictionary definition for the term *trough*.

trough, n. 1. a long, narrow, open receptacle, usually boxlike in shape, used chiefly to hold water or food for animals. 2. a channel or gutter. 3. any long depression or hollow, as between two ridges or waves. 4. *Meteorol.* an elongated area of relatively low pressure.

⁴ Notably, Long also does not disclose a *lateral* trough with an *upstanding* side wall. Long’s cable duct 2 is vertical, not horizontal. Figure 2 establishes this vertical orientation by the forward-facing side of the equipment panel (10) for making connections, and by the cables which are shown suspended in the middle of duct (2’). Therefore, the orientation limitations such as *lateral*, *upstanding side*, *over the top edge* (discussed in further detail in ADC’s appeal at Section I.A) are also not satisfied by Long, providing additional basis for refusing to reject the claims as being anticipated by Long.

A69, A96.

Panduit complains that the Board’s definition is too narrow. Panduit’s submissions to the Board in connection with the appeal of the ‘854 patent did not propose an interpretation of the word “trough” or “cable exit trough.” However, Panduit now asks this Court to construe “cable exit trough” to mean “a structure that routes cables out of a lateral trough section by providing a pathway for the cables to exit the lateral trough section.” Panduit Br. at 29.

Panduit’s proposed construction erases the word “trough” from the claims. Panduit’s construction gives no specific meaning to the term *trough* and, instead, suggests that the term *trough* means any structure, regardless of its shape or configuration. It is important to recognize, however, that the claims are directed to a cable exit *trough*, not a cable exit *structure* or a cable exit *device*. In the English language, a trough is understood to refer to a structure with a specific shape and configuration, not just any structure. The Board’s construction appropriately recognizes the commonly understood configuration and shape denoted by the term *trough*, i.e., a long, narrow open receptacle, gutter or channel.

The only evidence of record cited by Panduit to support its interpretation is the specification of the ‘854 patent itself.⁵ See Panduit Br. at 29. However,

⁵ Panduit cites a number of dictionary definitions that are not in the record, were not considered by the Examiner or the Board, and, in fact, were specifically

nowhere in the specification is the term *trough* or *cable exit trough* defined as broadly as Panduit suggests. The passages quoted by Panduit merely identify how the cable exit trough is *used* in the disclosed embodiment. They do not purport to define the term *trough*. The specification's disclosure that the cable exit trough "creates a cable exit pathway" or "is mountable to the lateral trough section to provide a cable exit pathway from the lateral trough section" does not define what a trough *is*. These passages merely identify how the trough is *used* in this application. A use is not the same as a definition. By analogy, that glue may be used to secure two boards together does not mean that screws are glue. Here, statements in the specification describing how the cable trough is used do not amount to a definition for the term *trough*.

Pulling the word "pathway" from these two portions in the specification, Panduit asserts that the term *trough* means any structure that defines a pathway. This obviously goes too far. Many structures define pathways that are not troughs. A sidewalk defines a pathway but is not a trough. A flight of stairs may define a pathway but is not a trough.

Panduit argues that a trough does not require an open side. In other words, according to Panduit, tubes or pipe structures that are surrounded along their lengths are also troughs. There is no evidence in the record that anyone of skill in

excluded from consideration by the Examiner and the Board because they were improper. A196-197; A32-34. Nevertheless, these are addressed below.

the art ever has or ever would refer to a tube or pipe structure as a cable trough.

Panduit purports to have found a technical dictionary definition that defines “cable trough” to mean “an enclosed channel, usually beneath the floor, that provides a path for cables.” There are multiple problems with Panduit’s argument. First, this evidence was not properly submitted to the Examiner. Panduit failed to properly produce this evidence during the original reexamination proceedings and, therefore, neither the Examiner nor the Board considered it. In fact, both the Examiner and the Board expressly refused to enter or consider it because it was submitted improperly. A196-97; A32-34.

Second, the dictionary definition that Panduit provides, which says a cable trough is an “enclosed” channel, if it truly refers to tube-like structures, contradicts and would exclude the preferred embodiment disclosed in the ‘854 patent. The embodiment shown in FIG. 1 of the ‘854 patent specification shows exit trough 100 having an open top along its entire length so that cables can be easily placed in the trough. A99. It is not enclosed. An interpretation that would exclude the preferred embodiment is rarely, if ever, correct. *On-Line Techs., Inc. v.*

Bodenseewerk Perkin-Elmer GmbH, 386 F.3d 1133, 1138 (Fed. Cir. 2004).

Likewise, it was reasonable for the Board to give little or no weight to purported claim construction evidence that would contradict or exclude the preferred embodiment of the patent disclosure.

Further, the use of the word “channel” in Panduit’s definition (“an enclosed channel”) itself suggests that a cable trough has an opening along its length. But Panduit attempts to define away any specific structural meaning to the word *channel* by suggesting that “[a] channel is simply a ‘course,’ or ‘route,’ i.e., a pathway.” Panduit Br. at 30. Notice how far removed from the term *trough* Panduit must go to arrive at *pathway* for its interpretation. First it ignores all the other language in the definition for *trough* which describes a specific shape such as “a long, narrow, open receptacle” and “a channel or gutter.” A96. Then it ignores the fact that the word channel when referring to physical structures also denotes a similar shape, i.e., “a groove or furrow.” A864. Instead, Panduit selectively chooses a more abstract definition for channel as meaning a “course or route.” Finally, Panduit throws out “course or route” and substitutes the word *pathway* in its place. This is the strained logic that gets Panduit from *trough* to *pathway*. Panduit’s argument should be rejected.

B. There Is Substantial Evidence That Long Does Not Disclose a “Cable Exit Trough” as Properly Construed by the Board

The Long reference does not disclose a cable exit *trough*, and the Board’s finding to this effect is supported by substantial evidence. In contrast to a trough which the Board construed to be a long, narrow, *open* receptacle, the Board noted that the funnel shaped part described in Long would be understood to be an enclosed tube or shaft. Because such a funnel shaped part does not have an open

side along its length, the Board determined that Long's disclosure did not include a cable exit trough. A69. Therefore, the Board affirmed the Examiner's decision not to adopt the proposed § 102 rejection based on Long. A70-71

The distinction between a trough (having an open side along its length) and a completely enclosed tube or tunnel is significant. A fiber routing system may hold hundreds of fibers which may be more than a hundred feet in length. To route one of these fibers through an enclosed tube or tunnel requires an installer to take one of the ends of the fiber and thread, or fish, the entire fiber through the tube. Since exit troughs are positioned along routing systems suspended from the ceilings, this would require the installer to feed the entire fiber while standing on a ladder. In contrast, with a trough an installer can route a fiber within the trough by simply placing the intermediate portion of the fiber into the trough without disturbing or needing any access to the ends of the fiber.

The only argument in Panduit's appeal brief that attempts to address the Board's analysis is found on page 33 of its brief. There, Panduit suggests that even if the funnel shaped part 5 is a tube, it still has open ends, meaning the bottom of the tube where the cables enter the tube is open and the top of the tube where the cables exit is also open. Even if that accurately describes the funnel-shaped part 5, this argument misses the point of the Board's decision. If cables are routed through the funnel shaped part, of course the tube that it defines has an opening at

each of its ends. The Board did not misunderstand what a tube is. The fact that the funnel-shaped part may have openings *at its ends* is irrelevant to the Board's analysis. A tube is not a trough because it does not have an open *side*, i.e., in the direction of its length. That is the unmistakable basis for the Board's decision, and Panduit's objection that a tube still has openings at its ends does not address the Board's findings or analysis.

Panduit further asserts that the combination of Long's funnel shaped part 5 and rounded guiding element 6 satisfies the Board's construction of a trough. On the contrary, a reasonable person could easily find that looking at these two elements in combination does not disclose a trough. The rounded guiding element 6 is a single convexly curved surface, which does not define a trough. If a tube or tunnel (the configuration of the funnel-shaped part 5 as found by the Board) is not a trough, and a sidewalk (i.e., a single surface such as rounded guiding element 6) is not a trough, then placing the two end to end, i.e., placing a sidewalk at the end of a tunnel, does not define a trough either. Neither discloses a trough individually, and neither provides what the other is lacking to create a trough.

Finally, the Federal Circuit has already affirmed a Board decision that Long does not disclose a cable exit trough. In the recent *inter partes* reexamination of related U.S. Patent No. 6,868,220 ("the '220 patent") the Board refused to adopt Panduit's proposed §102 Long rejection on the *sole* basis that Long did not

disclose a “cable exit trough.” The Board, in its Decision regarding the ‘220 patent, interpreted the word *trough* in the same way it did in its decision at issue in the present appeal, i.e., a long, narrow, open receptacle, gutter or channel. *See* A3071-72 (‘220 Board Decision at 8-9). The Board found that this element was missing in Long because Long’s structure was not open. A3090-91, 94 (‘220 Board Decision at 27-28, 31). Panduit appealed the Board’s decision regarding the non-adopted Long rejection of the ‘220 patent to this Court. *See* Appeal Nos. 2012-1435, -1436. On August 12, 2013, this Court issued a decision summarily affirming under Fed. Cir. R. 36 the Board’s decision regarding the ‘220 patent. A3111-12. Given that the prior appeal of the Long rejection involved a *single* issue -- whether Long discloses a “cable exit trough” -- this Court’s Rule 36 judgment affirming the Board’s decision in that prior appeal precludes Panduit from now re-arguing this same issue in the present appeal. *See TecSec, Inc. v. IBM Corp.*, No. 12-1415, 2013 U.S. App. LEXIS 20094, at *14 (Fed. Cir. Oct. 2, 2013) (providing that if prior Rule 36 judgment is decided based on a single issue, then judgment has preclusive effect as to that issue in subsequent appeal).

C. Panduit’s Arguments Regarding the Drawings That Panduit Prepared Are Moot and Inaccurate

On pages 34-39 of its brief, Panduit challenges the Board’s findings regarding the lack of evidentiary support for the drawings (i.e., FIGS. A-D) that Panduit submitted during reexamination to attempt to support its invalidity

assertion based on Long. For the reasons discussed below, Panduit's arguments are moot and erroneous.

1. Panduit's Arguments Are Moot Because the Board Found that the Structure in Panduit's Drawings Is Not a Trough

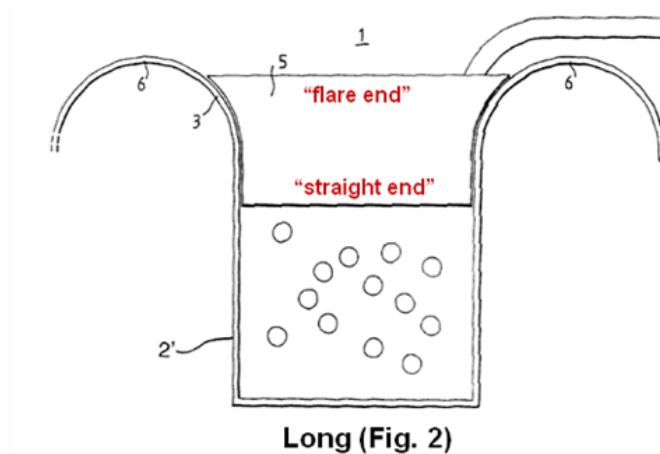
Panduit asserts that there are two features in its drawings (an opening through the funnel-shaped part 5 and a flare at the bottom) that one of skill in the art would infer based on the general teaching in Long.

This argument is irrelevant in view of the Board's findings made in connection with its refusal to adopt the Long rejection. The Board found, and Panduit does not dispute, that the structure in Panduit's drawings is enclosed along the length of the structure. Because the structure in Panduit's drawings does not have an open side (as required in order to be a trough), the Board concluded that the structure in Panduit's drawings do not disclose a trough. As such, even if there were evidence supporting the accuracy of Panduit's drawings (which the Board disputed), that would not change the Board's conclusion that Long lacks a trough.

2. There is Substantial Evidence Supporting the Board's Conclusion that Panduit's Drawings Are Unsupported by Evidence

The Board also found that Panduit's drawings were speculative, and that Panduit did not introduce adequate evidence that one of skilled would have inferred the structure shown in Panduit's drawings. A71, A8. There is substantial evidence to support that finding.

First, Panduit's drawings (and in particular the two features discussed in Panduit's appeal brief) conflict with specific teachings in Long. Long discloses that the funnel-shaped part 5 has a "substantially straight end" and "flare end". A815 (col. 1:35-41). These two ends are identified below in FIG. 2 of Long.

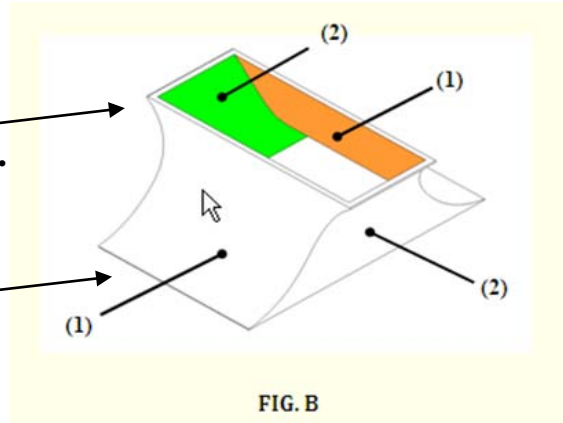


In contrast, Panduit's drawings depict the funnel-shaped part with *two* flared ends. The green surfaces flare outward at the top and the orange surfaces flare outward at the bottom. See annotations below to Panduit's drawings. Neither end is substantially straight.

Contrary to Long's disclosure, Panduit's interpretation of Long has two flared ends.

Flared at this end...

...and at this end



In addition, Long teaches that the guiding device (which includes funnel-shaped part 5) “widens in the direction of exit.” A815 (col. 1:49). In contrast, the curved orange surfaces on Panduit’s drawings curve toward each other as they extend from the bottom of the duct in the direction of the duct exit. As a result, the device *narrows* (at least in one dimension) in the direction of the exit.

Second, Panduit’s structure is not funnel-shaped. The reference to part (5) in Long as being “funnel-shaped” merely refers to the tapered or “flared” outer ends *pictured in FIG. 2* of Long. The resulting shape is wider at its top than at its bottom (like the outer contours of a funnel). Panduit’s proposed structure does not do that. In a first dimension, it is wider at the top than at the bottom, but in another dimension it is wider at the bottom than at the top.

Third, Panduit’s argument is not supported by any testimony from a skilled artisan. According to Panduit, one skilled in the art would infer from Long’s disclosure that the bottom of the funnel shaped part must be curved. Panduit Br. at 34-39. However, there is no evidence in the record from one skilled in the art that

he or she would make such an inference, nor is there any evidence or testimony that such features must inherently or necessarily result from Long's disclosure.

II.

THE BOARD DID NOT ERR IN REFUSING TO REJECT CLAIMS 8-10, 12-21, 37-49, 51, 57-62 and 64-67 AS OBVIOUS BASED ON LONG IN VIEW OF ZETENA

Panduit's appeal of the proposed obviousness rejection based on Long and Zetena fails both on procedural grounds as well as on the merits. Regarding the procedural grounds, Panduit has ignored the basis for the Board's decision on this proposed rejection. The Board found that it did not have jurisdiction to consider the merits of this proposed rejection because the Examiner's determination (which was on review to the Board) did not address the merits of the rejection. The Examiner had found that this proposed rejection was improper, and on that basis refused to consider it. Panduit's brief to this Court does not challenge the Board's conclusion that it lacked jurisdiction. Moreover, this proposed rejection fails on the merits because neither Long nor Zetena discloses a "cable exit trough."

A. Panduit Has Not Challenged the Board's Conclusion That It Lacked Jurisdiction to Consider the Merits of This Proposed Rejection

Panduit first raised this obviousness rejection in its comments responding to ADC's reopening of prosecution following the first Board decision. In Panduit's comments, it asserted that claims 8-10, 12-21, 37-49, 51, 57-62 and 64-67⁶ should be rejected under 35 U.S.C. §103(a) over Long in view of Zetena. A201. While

⁶ As explained above in footnote 1, Panduit never argued for this proposed rejection as to claims 22 and 52.

this was characterized as a new, separately-proposed rejection, it was for the most part just a re-argument of Panduit's anticipation rejection based on Long. In fact, Panduit's §103 argument regarding Long + Zetena referenced and relied on the same new evidence that Panduit relied on in its re-argument of §102 rejection based on Long.

The Examiner's Answer refused to consider the merits of either Panduit's re-argument of the § 102 Long rejection or the § 103 rejection based on Long + Zetena. The Examiner found that Panduit's proposed §102 Long rejection was improper because it was just a re-argument of the same rejection that the Board had refused to adopt in its earlier decision, and thus was improper for reopened prosecution. A196-97. In view of this, the Examiner did not address the merits of either Panduit's proposed §102 rejection (based on Long) or the proposed §103 rejection based on Long + Zetena.

Panduit appealed the Examiner's decision to the Board. In its decision on this appealed issue, the Board concluded as follows:

As the newly proposed rejection is based on arguments and evidence that the Examiner did not consider (Finding 19), it is not before us for review. The Examiner's determination did not involve the merits of the rejection and is thus not under our jurisdiction. 35 U.S.C. § 134. Panduit's relief was by way of a petition requesting that the Examiner reconsider the Long rejection in view of the new evidence.

A34.

Panduit's appeal to this Court does not challenge the Board's finding that it lacked jurisdiction to address the §103 rejection based on Long + Zetena. Instead, Panduit only argues the merits of the rejection, and in so doing is improperly asking this Court to review a decision that the Board never made.

ADC suspects that Panduit recognizes its proposed §103 rejection based on Long + Zetena is procedurally improper. That would explain why Panduit does not separately argue the merits of this rejection in its appeal brief. Instead, throughout its brief Panduit lumps its appeal of the §103 rejection with its appeal of the Board's decision of the §102 rejection based on Long. While the Board did address the §102 rejection on Long (in its first decision), it never addressed the merits of the §103 rejection.

B. Neither Long nor Zetena Discloses Limitations in the Claims at Issue

Panduit's proposed §103 rejection also fails on the merits. The Board found, and there is substantial evidence to support that finding, that Long does not disclose a "cable exit trough." Similarly, Zetena does not disclose a cable exit trough. In fact, Panduit's submission to the Examiner (and to the Board) did not assert for this rejection that Zetena discloses an exit trough. Instead, in support of this proposed rejection Panduit only asserted that Long discloses an exit trough. Moreover, in a related reexamination the Board specifically found that Zetena does

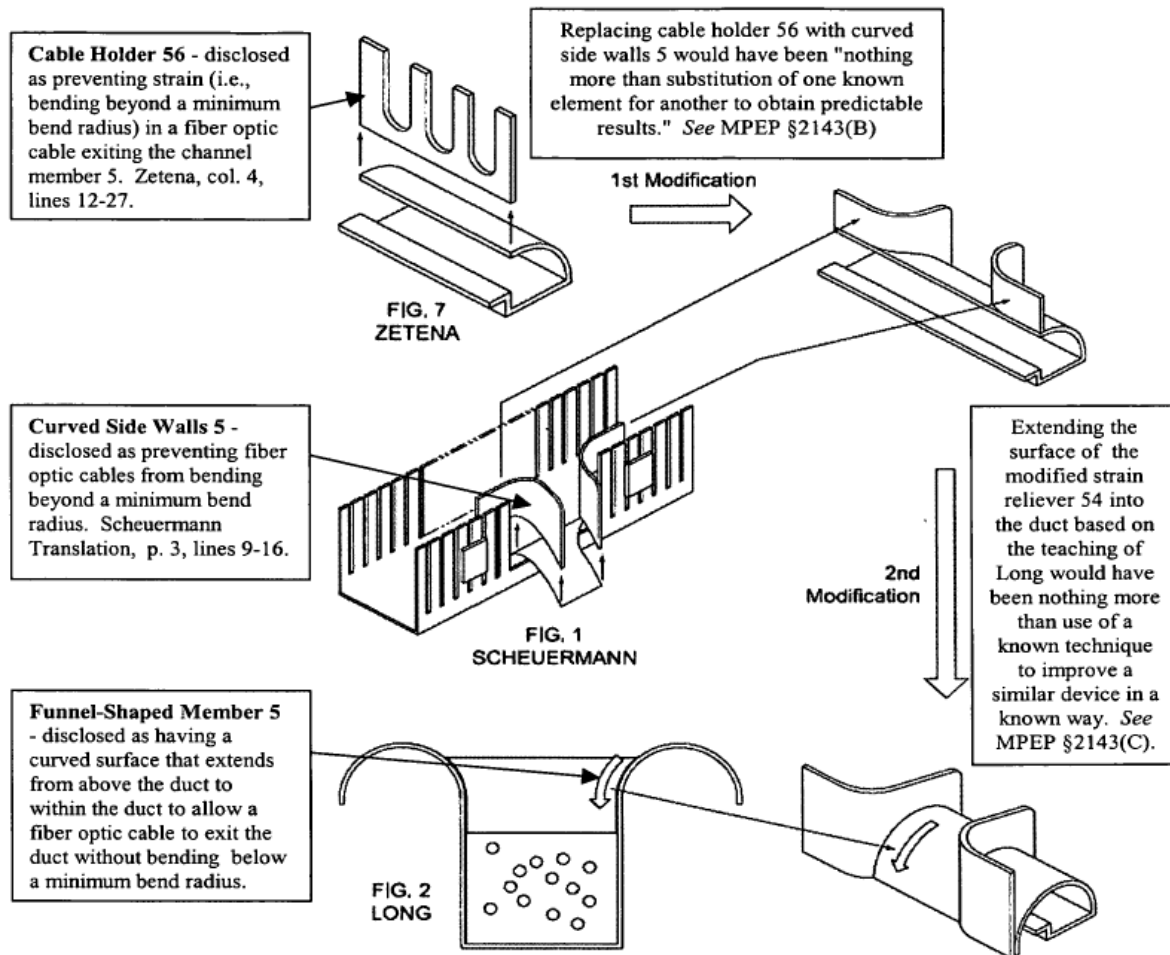
not disclose an exit trough. A3123-24 (Board's Decision at 8-9); A3141-44
(Board's Decision on Rehr'g at 3-6).

III.

THE BOARD DID NOT ERR IN REFUSING TO REJECT CLAIMS 8-10, 12-22, 37-49, 51-52, 57-62 and 64-67 AS OBVIOUS BASED ON ZETENA IN VIEW OF SCHEUERMANN AND LONG

A. There Is Insufficient Evidence That Replacing Zetena's Cable Holder with Scheuermann's Curved Side Walls Would Be Obvious

Substantial evidence supports the Board's finding that claims 8-10, 12-22, 37-49, 51, 52, 57-62, and 64-76 are *not* obvious in light of Zetena, Scheuermann, and Long. As shown in Panduit's figure below, Panduit's proposed rejection started with the cable strain reliever 54 of Zetena, removed cable holder 56 of the strain reliever, substituted curved sidewalls 6 and 9 from Scheuermann's cable guide part, extended the curved bottom surface of the modified strain reliever to form a semi-circle like Long's rounded guiding element 6, and then (for claim 22) added a curved upper surface from Panduit's interpretation of Long (not shown).



A173.

The Board disagreed with Panduit's analysis for a number of reasons. A25-A29; A3-A6. First, the Board disagreed that it would have been obvious to remove the cable holder from Zetena's strain reliever and replace it with curved sidewalls as shown in Scheuermann. A26. The Board pointed out that these two elements are described as performing different functions. The Board stated:

Panduit's arguments are flawed. The function performed by Scheuermann's cable guide part is different from the function performed by Zetena's cable holder. Zetena teaches that its cable holder 56 is designed with slots 57 to receive, firmly hold, and secure the grommet 58 that encircles the fiber optic cable (Findings 3 & 4).

By holding the grommet 58, the cable holder slots 57 also hold the fiber optic cable firmly and securely in place. Scheuermann characterizes its cable guide part differently. Scheuermann teaches that the guide part has bent side walls 5 to maintain a minimum bend radius (Findings 8 and 9). Thus, the purpose served by Zetena's cable holder in securing the cable fiber differs from Scheuermann's purpose in preserving the minimum bend radius. Panduit's contention that the components "perform the same function" . . . is therefore not factually supported, undermining its obviousness rationale.

A26. Since the two components were described as performing different functions, the Board was not convinced that it would have been obvious to replace one with the other. In other words, because the cable holder 56 of Zetena performed the function of "receiving, firmly holding, and securing" the grommet and fiber cable, it would *not* have been obvious to replace that structure with Scheuermann's curved sidewalls that do not perform that function.

In addition, the Board further found that the substitution Panduit proposed would not have been obvious because the holding function provided by Zetena's strain reliever would be completely eliminated by substituting sidewalls. A26.

In its request for rehearing before the Board, Panduit asserted that the holding function is not the primary function of Zetena's strain reliever. Panduit pointed to the grommet 58 in Zetena and suggested that the grommet in combination with the cable holder 56 in Zetena performed the function of preventing bending below a minimum bend radius, the same function performed by Scheuermann's sidewalls. In its Decision, the Board responded that there was

insufficient evidence that the cable holder and grommet function to prevent excessive bending of the cable. The Board stated:

We are not persuaded by Panduit's arguments that we erred in finding the claims as not obvious in view of Zetena, Scheuermann, and Long. Panduit's argument is based on their assertion that the cable holder 56 and associated grommet 58 perform the function of "preventing bending below a minimum bend radius." Req. Reh'g 4. However, Panduit has not introduced evidence that the combination of cable holder and grommet are effective to prevent bending. In fact, Figure 8, reproduced below, shows the cable bending in a loop outside the grommet.

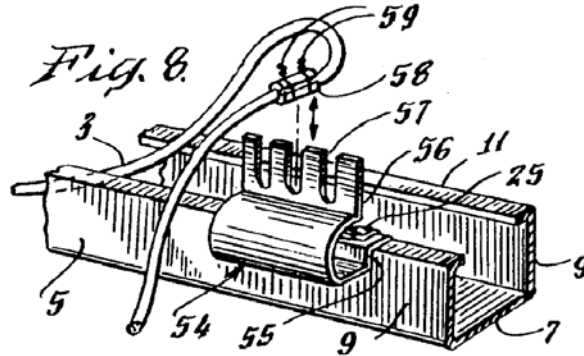


Figure 8 shows the strain reliever 54 with cable holder 56 and slots 57. As shown in the Figure 8, a "cable 3 is encircled with a protective grommet 58 which is held in place with tie wraps 59 . . . The slots 57 are sized to receive and firmly hold grommet 58." Zetena, col. 4, ll. 18-23. The bend in the cable is shown to occur outside of the grommet. Thus, the grommet does not appear to prevent the cable from bending beyond a minimum radius as asserted by Panduit. While other more favorable configurations may be possible, we are simply relying on this drawing to establish that Panduit's contention that the grommet 58 and cable holder 56 prevent cable bending beyond a certain minimum radius is not immediately apparent from Zetena which neither describes nor shows this function.

A4-A5.

In its present brief, Panduit again argues that the Board erred in concluding that the functions of these two elements are different. Now, however, Panduit has shifted its argument. Panduit is no longer arguing that the function of Zetena's cable holder and grommet is to prevent bending below a minimum bend radius, which is the function identified in Scheuermann for the curved sidewalls. Instead, Panduit now argues that the function of Scheuermann's curved sidewalls is to hold the fiber cables in place, just like Zetena's cable holder. Panduit Br. at 41 (“[S]ide walls 6, 9 of Scheuermann's cable guide part hold the fiber optic cables 7 in place . . .”). Panduit's argument is without merit.

There is substantial evidence—in fact, ample evidence—that the cable holder 56/grommet 57 of Zetena perform a different function than the curved side walls in Scheuermann. As the Board noted, the function of the cable holder is expressly stated in the Zetena reference (and in the component's name itself) as to receive, firmly hold, and secure the grommet and cable. A26; A22 (FF3-4); A824 (col. 4:18-27). Indeed, Zetena refers to the slots in the cable holder as “cable-retaining slots 57”. A824 (col. 4:18). By contrast, no such function is described or shown for the curved side walls 6, 9 in Scheuermann. Instead, Scheuermann describes the function of the curved side walls as preventing the cables from bending beyond a minimum bend radius. A833 (ll.11-16); A832 (ll. 16-22). As

can be seen in Scheuermann's Figure 1 (A835), the cables are only loosely routed through the cable guide part and are not firmly held or secured by the side walls.

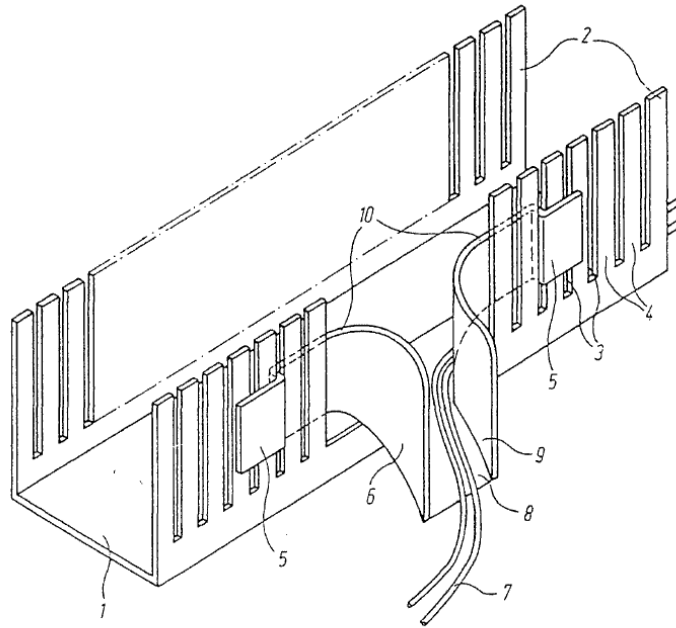


Fig. 1

If the cables happen to contact the side walls, the curvature of the walls ensures that the cables are not excessively bent, but the walls do not hold or secure the cables at all. The Board appreciated this difference in function between the two structures and made reasonable findings of fact accordingly. A26; A23 (FF7-9); A3-A6.

It is easy to see reasons why it is important for the cable holder in Zetena to firmly hold and secure the grommet and cable. Zetena's device relies on reinforcing the cable itself with the protective grommet to prevent damage to the cable where it rubs against the edge of the cable holder, but the cable is only

protected at the single location where the grommet encircles it. If the cable with its grommet were only loosely placed in a wider slot that did not firmly secure or hold the cable/grommet, even the slightest slip forward or backward would bring an unprotected portion of the cable into contact with the hazardous, sharp edge of the cable holder slot. Therefore, it is critical to the operation of Zetena's device that the cable holder 56 firmly holds and secures that portion of the cable that is protected by the grommet.

The difference in the Zetena device and the Scheuermann device also is apparent when considering how they accommodate multiple cables. The Zetena strain reliever 54 ensures that if multiple cables are routed out of the duct each individual cable is firmly held. Each cable that enters/exits the duct is fitted with a grommet and firmly held within one of the multiple slots of the holder 56. In contrast, the Scheuermann device does not individually manage or hold single cables, but all of the cables are loosely placed in a common exit pathway that includes curved surfaces that the cables may or may not contact.

The Board noted other evidence in the Zetena reference itself indicating the function of the cable holder was not to prevent excessive bending of the cable (the express function of the Scheuermann's side walls). The Board noted that Figure 8 of Zetena shows the cable being bent in a loop outside the grommet. A4-5. The dramatic bend of the cable shown in Figure 8 further reinforced to the Board that

Panduit had not introduced sufficient evidence that the combination of cable holder and grommet are effective to prevent excessive bending. A4.

Because the Board found that the cable holder and the curved side walls do *not* perform the same function, the Board found that there was inadequate evidence that one of skill in the art would have considered it obvious to replace one with the other. A26. The Board's analysis also leads logically to the conclusion that replacing the cable holder with the curved side walls would eliminate the function performed by the cable holder, namely firmly holding and securing the cable. *See* A26; A6. The Board noted:

We fail to see, and Panduit does not persuasively establish, how such function of holding the cable can be attained by the replacing the cable holder 56 with the curved side walls 5 of Scheuermann. If a proposed modification would render the prior art invention being modified inoperable for its intended purpose, then there may be no suggestion or motivation to make the proposed modification. *See In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *see also In re Schulpen*, 390 F.2d 1009, 1013 (CCPA 1968); *In re Spinnoble*, 405 F.2d 578, 587 (CCPA 1969).

A6.

Panduit's only response in its appeal brief is to reiterate that it believes the side walls in Scheuermann's cable guide part perform the same function of holding the fiber optic cables as the cable holder in Zetena. Panduit Br. at 43. Tellingly, Panduit fails to cite to any portion of Scheuermann that describes the side walls as performing the function of holding the cables firmly in place or holding the cables

at all. In fact, the figures of Scheuermann show just the opposite. Figure 1 of Scheuermann shows the cables loosely routed through the cable guide part, not firmly held or secured in place by the curved side walls. A835. As explained by the Board, Panduit's argument is unsupported, unconvincing, and should be rejected.

B. There Is Insufficient Evidence That a Curved Upper Surface Is Disclosed in Long

The Board addressed independent claim 22 separately from the other independent claims that Panduit had attacked with its proposed 103 rejection. The Board noted that certain claims, such as claim 22, recite an "upper surface" that "curves upward relative to the bottom portion of the lateral trough section and defines a top boundary of at least a portion of a cable path." *See* A244; A27-29.⁷ Panduit had argued that Long disclosed such a curved upper surface, which could have been added to the modified Zetena structure discussed above. The Board, however, disagreed and found that this limitation created an additional independent ground for finding the claim to be non-obvious. A27-29.

The Board cited evidence supporting its decision. The Board noted that the Scheuermann reference, which explicitly addresses itself to maintaining cable minimum bend radius, failed to disclose or recognize the need for such a surface.

⁷ Claim 52, dependent claims 45-50, 53, 61-63, and all claims depending from claim 22 include the same or similar limitations.

A29. Panduit's present appeal brief completely fails to address this evidence.

Panduit's silence on this evidence is all the more surprising where the fact that Scheuermann had failed to identify the need for an upper surface was explicitly cited by the Board to support its decision refusing to adopt this obviousness rejection.

Panduit's appeal brief focuses on the issue of whether Long discloses the recited upper surface in claim 22. But Panduit identifies a surface on a drawing that is not disclosed in Long. *See* Panduit Br. at 46. That drawing is one of several drawings (referred as Exs. A-D in Panduit submissions) that Panduit's attorneys have argued can be inferred from the disclosure in Long. The Board, however, has repeatedly made findings that there was insufficient evidence that one of skill in the art would have inferred the structure shown in Panduit's Figures A-D from the disclosure of Long. The Board stated:

Panduit provided Figures A-D, which did not appear in Long, but which they drew based on alleged inferences from Long. Panduit Appeal Br. 11-14. We found there was inadequate evidence that one skilled in the art would have inferred the structure shown in these figures. Decision 1, pp. 33-34. The drawings are speculative and there is insufficient evidence that they depict a structure *necessarily* described by Long.

A8. Similarly, the Board stated in its first Decision:

Panduit did not introduce adequate evidence, such as testimony from the skilled artisan, that one skilled in the art would have inferred the structure shown in FIGS. A-D upon reading the Panduit publication. An argument made by counsel in a brief does not substitute for

evidence lacking in the record. *Estee Lauder, Inc. v. L'Oreal, S.A.*,
129 F.3d 588, 595 (Fed. Cir. 1997).

A71.

CONCLUSION

The rejection of claim 1 under § 102 based on Meyerhoefer should be reversed. The rejection of claims 1 and 36 under § 102 based on Scheuermann should be reversed. The obviousness rejection of claims 1, 36, 74 and 77 based on Staber plus Scheuermann or Meyerhoefer should be reversed. The Board's Decisions on all other issues should be affirmed.

Respectfully Submitted,

Dated: November 21, 2013

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CERTIFICATE OF COMPLIANCE

Pursuant to Rule 32(a)(7)(C), Fed. R. App. P., I certify that this brief complies with the type-volume limitation of Rule 28.1, Fed. R. App. P. This brief contains 16,480 words, calculated by the word processing system used in its preparation.

Dated: November 21, 2013

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